

BUSINESS WEEK

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1939



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Hands that Command the Nation

THE TECHNICAL KNOWLEDGE, the ingenuity and the resources of America are at the disposal of our skilled medical officers on the fighting fronts of the world. They command every aid the nation can supply. That is one reason why a wounded man's chances of survival are greater today than they have been in any other war.

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Stainless steels are "stainless" because they contain more than 12 per cent chromium. Low-carbon ferrochromium, a research development of ELECTRO METALLURGICAL COMPANY,

a Unit of UCC, is the essential ingredient in the large-scale production of stainless steel. Units of UCC do not make steel of any kind. They do make available to steelmakers many alloys which, like ferrochromium, improve the quality of steel. The basic research of these Units means useful new metallurgical information—and better metals to supply the needs and improve the welfare of mankind.

Members of the medical profession, architects and designers are invited to send for booklet 1-2, "THE USE OF STAINLESS STEELS IN HOSPITALS." There is no obligation.



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GASES FOR HEALTH. LINDE oxygen U.S.P. made by a Unit of UCC is used by the sick in hospitals and at home—and it contributes to the safety of our high flying aviators.



CHEMICALS FOR HEALTH. Synthetic organic chemicals, developed by a Unit of UCC, mean better anesthetics, more plentiful sulfa drugs, vitamins and other pharmaceuticals.



PLASTICS FOR HEALTH. BAKELITE and VINYLITE plastics, produced by UCC Units, mean sanitary paints, floor coverings, sheeting, "burn sleeves" and other essentials.

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Relaxed Reins on Industry

The striking thing about the type of postwar planning now in the Washington spotlight is that, strictly speaking, it's not postwar planning at all. It's transitional planning—planning of a practical sort that is designed to give industry its head.

The official plans—official in that they are setting the pattern for administrative and legislative action—all concentrate on the initial job of getting plants back to peacetime work, moving government property out of factories, negotiating settlements on terminated contracts.

Grand-scale planning of the sort typified by the work of the late National Resources Planning Board still continues in many places, but it is reduced to the status of academic exercise.

George and Baruch Set Pace

The long-awaited report of Senator Walter F. George's postwar planning committee, released this week, is a case in point.

The George committee and Bernard M. Baruch's postwar unit in the Office of War Mobilization are setting the pace for the government's thinking on post-war problems.

By confining themselves to the problems of the transition period, they have ruled out other, more ambitious types of planning—the full-employment approach and the over-all national income approach—at least for the time being.

Stick to Main Objectives

In its first report, the George committee sticks to the problems of terminating contracts and disposing of surplus property. In the introduction, it sidles up to the question of full employment and high-level consumption, but it retreats quickly to problems of advance payments, audit of settlements, and liability of contracting officers.

Specific recommendations boil down to three general principles:

- (1) Establish a central office of demobilization, headed by a director and an advisory board, to direct termination of contracts and surplus disposal, subject to broad instructions from Congress.
- (2) Authorize advance payments and government loans to contractors undergoing termination.
- (3) Provide for direct settlement between the government and subcontractors.

Baruch's unit may be working toward conclusions that differ from George's, but it is covering exactly the same ground. Baruch's first report laid out the uniform termination clause for government contracts (BW-Jan. 15 '44, p15). The problems that now head his list include such details as company-wide settlements, treatment of subcontractors, loans, and advances.

Initiative Up to Business

Neither George nor Baruch has surrendered his right to the broad philosophical approach. They simply have postponed any work on it until some time in the indefinite future.

If the Administration follows the course George and Baruch are laying out, it will enter the postwar period prepared to meet particular problems but trusting to the natural operation of the economic system to resolve the major issues.

This gives industry the opportunity to work out answers for itself. But there is one big string attached to this opportunity. If industry's answers are wrong, or if they are long delayed, grand-scale government planning will come back with a rush.

Last Mile for CCC

It looks like certain death for the Commodity Credit Corp. Feb. 17. By passing the bill banning subsidies, Congress is tossing the issue back in the President's lap. Meantime, War Food Administration lawyers are trying to prove that CCC has power to make loans and pay out subsidies after its present statutory expiration date.

They argue that, as a Delaware corporation, CCC has practically unlimited charter power to buy, sell, lend, or otherwise deal in commodities in any way it pleases; also that CCC was directed by Congress in 1942 to make loans on basic crops and to support prices of nonbasic crops for two years after the war.

The hitch comes in the wherewithal—through congressional limitation on borrowing capacity.

Used Car Ceilings—Not Yet

Reports that price ceilings for used cars will be announced Mar. 1, to become effective Apr. 1, are incorrect.

Used car ceilings are "imminent" (as they have been for the past year or

more), but no definite date has been set by OPA.

Recently, OPA revised its proposed price schedule, which was getting somewhat hoary, and at the same time promised dealers that they would be given 30 days' warning when, as, and if it went into effect.

Aware that slapping ceilings on used cars would be tantamount to creating a black market (this is one reason rationing is almost certain to be coupled with ceilings), OPA has been more than reluctant to impose them.

Hence, the agency's apparent strategy has been to keep the ceilings bubbling on the back burner and issue repeated warnings that they are ready to go on the minute prices get too far out of line.

Oil Subsidy Impends

Oil subsidy decisions will be made soon. They will follow the hold-the-line policy, granting direct production subsidies through refineries, to prevent abandonment of repressuring operations or secondary recovery, and stripper wells.

Any bonus to stimulate new production and wildcatting seems unlikely because OPA thinks 1944 will set a record for wildcatting without special inducements.

OPA estimates the subsidy cost at \$50,000,000. It figured a 35¢-a-bbl. increase in all crude oil prices, for which producers have been asking for months, would have cost ten times that figure, not counting concessions to labor and marketers which might have been forced by a general price boost.

NWLB to Speed Rulings

The overworked National War Labor Board got reinforcements this week with the appointment by President Roosevelt of four alternate public members.

This will enable the board to sit in several divisions at the same time, speeding up the handling of cases and appeals from regional board and industry commission decisions.

The President also named Lloyd K. Garrison as full public member replacing Wayne L. Morse, who resigned to run for the Oregon Senate seat now held by Rufus C. Holman.

The new alternate members, drawn mainly from within the board's staff are: Edwin E. Witte, chairman of the



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As production goes all-out for victory, proper lubrication becomes even more vital. Yesterday's solution is seldom good enough for today.

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**LEADERS IN WAR PRODUCTION RELY ON
SHELL INDUSTRIAL LUBRICANTS**

Detroit regional NWLB; Frank V. Morley, associate public member; Dexter Keezer, ex-OPA official and former president of Reed College, Portland, Ore.; and Lewis M. Gill, chairman of the Cleveland regional NWLB.

New WPB Plan

Most recent plan for an administrative realignment of WPB to gear it for the reconversion job calls for two equal vice-chairmen, one the spokesman for military, the other for civilian requirements. Both would work through the executive vice-chairman (Charles E. Wilson).

There would also be a products vice-chairman, in charge of the various commodity divisions (textiles, radio and radar, forest products, etc.) and a materials vice-chairman, heading materials divisions (steel, copper, etc.).

Each of these divisions would have on it representatives of the civilian and military vice-chairmen.

Advocates of the plan point out that it would provide for a smooth flow of materials in either direction—civilian or military—do away with the need for further drastic shakeups in the industry divisions as reconversion to civilian production progresses.

A parting present from Arthur D. Whiteside, vice-chairman for civilian requirements, who leaves WPB this month (BW—Feb. 5 '44, p. 22), the plan hasn't received a final approval but is finding favor higher up. A point in its favor is that it would permit a drastic reduction in WPB's Washington personnel.

Food Markups May Rise

Although OPA hasn't yet decided, the agency probably will permit food wholesalers and retailers to recalculate markups automatically when processors are allowed a boost in their ceilings (BW—Dec. 11 '43, p. 8).

Under the present system, distributors are frozen on any given item at a ceiling price arrived at by calculating their markup on a processor's original price. When processors' prices are boosted, distributors aren't allowed to recalculate their markups and get new ceilings without specific permission from OPA.

It now looks as though they may be allowed to recalculate markups quarterly, without coming around for OPA's approval.

OPA Eyes Utility Rates

Long a humiliation to OPA has been its impotency to deal with public utilities. The price control act didn't give OPA explicit authority over public utilities but dangled a challenge before its lawyers by failing to define utilities clearly. Sure enough, the lawyers have found a crack and are busy trying to widen it.

The Supreme Court held recently (Davies Warehouse) that by the term "public utilities" Congress exempted those whose charges already were regulated by other governmental agencies. The clear inference to OPA's lawyers is that utilities whose rates are not so regulated, are not exempt from the price control act.

It so happens that in seven states there is no state regulation of electric utility rates. Certain other states do not

regulate the rates and charges of other types of utilities.

The court's decision also raises the conjecture as to whether OPA may not have jurisdiction over rates subject only to municipal regulation in states where there is no state control.

OPA is scanning the possibilities with lively interest but hasn't shown its hand yet.

Crop Insurance Idea

A "money-back" program to protect farmers against weather damage to crops is in the "think-stage" at the War Food Administration.

Idea would be to guarantee all farmers at least the cost of production in event crop yields fall below a specified minimum—a kind of crop insurance without the payment of premiums by

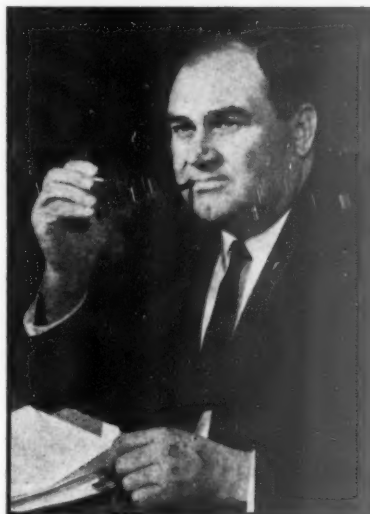
From Ax-Man to Under Secretary

Appointment of Grover Bennett Hill of Texas as Under Secretary of Agriculture marks the demise of the old Agricultural Adjustment Administration clique in the Agriculture Dept. and gives War Food Administrator Marvin Jones the close control over WFA that he has been after for the last six months.

• **Follows Wallace Aide**—Hill succeeds Paul Appleby, one of the early New Dealers in the department. Appleby not only advised Henry Wallace on agricultural matters when Wallace headed the department, but for nearly two years prior to the 1940 Democratic convention campaigned politically for the Iowan.

When Jones took over the WFA job—after both Secretary of Agriculture Claude Wickard and Chester Davis tried and failed—he found the agency seething with internal bickering and politics. He decided that if he was not to meet the same fate as his two predecessors, he would have to clean house. The cleaning job is now done. While Wickard still holds his title and his seat in the President's cabinet, he has no power.

Hill first joined the department during the AAA prewar days on recommendation of Jones, who was then serving as chairman of the House Agriculture Committee. Subsequently, he was promoted to assistant secretary, but he never received any real authority until Jones took



Grover B. Hill

over as War Food Administrator.

• **Now Gets Title, Too**—Hill, who kept out of department politics prior to Jones' appearance, proved useful as an ax-man as well as personnel adviser. A boyhood friend of the food administrator, he formed with Jones a perfect team, and he has been second in command, even though he did not get the title until last week.

Appleby has been shifted from his unhappy spot in the department to the Bureau of the Budget, succeeding Wayne Coy as assistant director.

ENGINE HOUSES

for New York Central



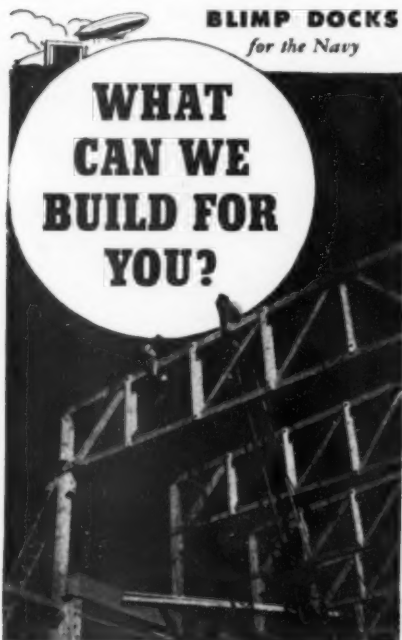
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farmers, the federal government to carry the total risk.

The political potentialities of this scheme, which would replace the now defunct payment-in-kind insurance plan, are obvious.

Shift Housing Control

The National Housing Agency will shortly take over from WPB complete control of privately financed war housing. WPB will provide requisite priorities automatically upon NHA approval.

At the same time, war housing construction standards will be liberalized to allow greater use of critical materials—other than lumber.

Refrigerator Cars Scarce

Refrigerator cars are at a premium, largely because the Army is shipping huge supplies of frozen, boned beef in them. Short of building new cars, the best way to increase shipping space is quicker turnarounds at destination.

That's the reason for the Interstate Commerce Commission's new order, multiplying demurrage charges on refrigerator cars. Maximum used to be \$5.50 a day; now the top will be \$44 a day for the sixth and all succeeding days after the two days of free time.

Incidentally, goods held in refrigerator cars are a much more trying problem than those held in boxcars. Cars have to be re-iced, and that takes manpower than which there is nothing scarcer on the railroads (page 9).

Capital Gains (and Losses)

War Dept. is preparing letters canceling contracts with seven of the ten manufacturers who make its M1 carbine. Contractors will get the news shortly—probably within ten days or two weeks.

Enough newspapers have expressed exasperation concerning the sterility of President Roosevelt's press conferences to warrant his discontinuing them for the duration unless he regards them as valuable for his own purposes.

Betting is growing in Washington that New York's Gov. Thomas Dewey will not run against Roosevelt but will try to keep himself in line for 1948.

When Jean F. Carroll came in as OPA's food price chief six months ago, he promised the canning industry that price ceilings on the 1944 pack of fruits and vegetables would be announced by the first of the year. The ceilings are still a long way off. Skeptics in OPA doubt if they will be ready much before April.

—Business Week's
Washington Bureau

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THE OUTLOOK

BUSINESS WEEK

FEBRUARY 12, 1944



Successes in the Pacific—the extraordinarily swift smashing of Kwajalein Atoll in the Marshalls, and this week's daring naval bombardment of Paramushiro—strengthen the Army-Navy-WPB drive for all-out war production.

Basic argument is: Forget the civilian economy, turn out the planes and the ships and the guns at top speed, and shorten the war. Once the boys are out of the foxholes, this thesis continues, we'll get back to civilian production fast enough.

Consequently, the exact timing of reconversion is once again the No. 1 problem of business. Tough going on the beachhead below Rome emphasizes the difficulties still to be faced in Europe; steadily widening successes in the Pacific (aside from the Burmese campaign) indicate that **the Japanese phase of the war may not take as long as most observers have been expecting.**

The longer the war in Europe lasts, the shorter will be the elapsed time between the fall of the Reich and the crushing of Japan. This **telescoping of the time between the two armistices means simply that the ultimate reconversion is likely to be sudden, severe, painful.**

Earlier calculations have allowed for Germany's defeat sometime this summer; Japan presumably was to take a year more, perhaps longer. Between the time when Germany's fall became a certainty and Tokyo was knocked out, there would be the opportunity for careful, well-regulated demobilization of industry.

The slower things go in Europe and the faster they go in the Pacific, the less smooth will be reconversion. Unless the advance planning is excellent, shutdowns and widespread unemployment might conceivably cause a severe wrench to the postwar economy.

Civilian economy would get more consideration, paradoxical as this may sound, if the military going got tougher. If this war were to drag out, the Army and Navy would be obliged to make some concessions to home-front morale.

Total war production would mount, it is true. Manpower needs would be tightened by deeper Selective Service inroads. **But civilian economy would be planned—for the first time.**

Luxuries would be eliminated to ease manpower. **Bedrock consumer needs would be determined, more things would be rationed, and the goods would be made available to meet the ration points.** Better controls on manpower, on production, on distribution, and on prices would become absolutely imperative.

Only the prospect of relatively quick and complete military success permits neglecting the civilian economy now.

The railroads' vital part in maintaining both the war and the civilian economy—and the difficulties under which they are struggling—were emphasized by the emergency meeting in Chicago the end of last week.

Problem now is not so much to get the freight cars as to get men to run them.

The Chicago meeting was no ordinary affair. The Assn. of American Railroads called out all its members (not just its board) in extraordinary session to consider the manpower problem in its every detail, and Joseph B. Eastman, director of the Office of Defense Transportation, sat in. There were two major results:

(1) **Eastman is now asking War Manpower Commission and Selective Service to give the railroads special consideration;** (2) **the carriers have agreed to take all the freight cars produced this year.**

Every railroader at the Chicago meeting had his own story to tell about the hardships worked by the manpower shortage. The stories differed in detail, but they were all the same in essence.

Machinists in the car shops have been lost; the ranks of brakemen, dispatchers, and yard clerks have been depleted; track crews just can't be kept up. A school for

THE OUTLOOK (Continued)

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telegraphers has been set up by the Illinois Central, for example, but a telegrapher isn't automatically a dispatcher (although a dispatcher is almost always a telegrapher). The roads have hired 103,000 women. Mexicans have been imported for track labor. Yet personnel shortages on Class I lines now aggregate almost exactly 100,000, even though the work-week has risen from 40 hours in 1939 to 51 now.

Peak employment was reached last July at 1,388,000. Since then, the total has slid steadily to 1,351,000 in December. Selective Service took 35,000 men in the last half of 1943; 227,000 railroaders are now in the armed services; draft calls for 85,000 men are expected in the first half of 1944, and probably about 60%, or more than 50,000, will be inducted.

Freight volume has risen to a new all-time high (measured in revenue ton miles) in each of the last three years. **Traffic in 1943 came fairly close to doubling that of 1918, and it was moved with half a million fewer men working for the carriers.**

But the problem is intensifying. There have been occasional instances of trains standing in stations for want of crews to take them out (usually during peaks of troop movement). Embargoes on shipment of freight to various points (usually to seaports where export facilities have become temporarily overcrowded) have been invoked from time to time. Army labor battalions have been called to help unload cars.

Yet the loads have gone through—both civilian and military. There still is every hope of skinning by without priorities on freight. Probabilities are that there will be periods marked by delays and more frequent embargoes, because **traffic already is surging up toward last October's seasonal peak (chart, page 21). The ability to avoid priorities very likely will be tested in the next few weeks.**

Railroads won't get delivery on enough new freight cars to help them much in the first half of 1944; they won't need many more in the last half of the year if the fortunes of war continue to run in favor of the United Nations.

The carriers have been figuring that the car shops couldn't deliver an average of more than 3,500 freight cars a month in the first half of 1944, and perhaps 5,000 a month for the last half—just over 50,000 in all. The roads had 34,000 on order Jan. 1 this year; orders pending brought the total to about 55,000.

But the Office of Defense Transportation and the car builders have decided that at least 65,000 can be built this year. The railroads agreed, at the Chicago meeting, to take them all; they only hope the ODT, WMC, and Selective Service will do more than render lip service to the contention that the carriers must be aided in their efforts to get the men to operate all their equipment efficiently.

Stocks of bituminous coal have been dropping steadily this winter, may be down to 50,000,000 tons (less than a month's supply at the present high rate of consumption) by the end of February. Shortages, largely due to maldistribution, have been felt in residential heating. The pinch shortly may catch the really big consumers—railways, steel, electric utilities.

It's now a race between winter weather and pinched stocks on the one hand and increased output on the other. Since the labor troubles were settled, output has averaged high—12,625,000 tons a week (with holidays omitted). That's about 5% above the weekly rate prevailing before the new labor contracts were signed.

If the 12,625,000-ton average is maintained through 1944, the year's total could easily reach 640,000,000 tons (with due allowance for holidays) against the official goal of 620,000,000. The goal, of course, is conservative; it would allow for little rebuilding of stocks if use continues at the present high rate. Nevertheless, if manpower and efficient operation permit maintenance of high operations, the worst should be over with the end of cold weather next month.

FIGURES OF THE WEEK

THE INDEX (see chart below)

\$ Latest Week	Preceding Week	Month Ago	6 Months Ago	Year Ago
*242.6	†242.6	239.6	236.8	225.4

PRODUCTION

Steel Ingot Operations (% of capacity).....	100.2	99.8	99.6	97.8	98.1
Production of Automobiles and Trucks.....	17,745	†18,250	18,090	19,250	17,195
Engineering Const. Awards (Eng. News-Rec. 4-week daily av. in thousands)....	\$4,892	\$8,039	\$8,323	\$7,058	\$10,938
Electric Power Output (million kilowatt-hours).....	4,524	4,524	4,568	4,241	3,960
Crude Oil (daily average, 1,000 bbls.).....	4,400	4,409	4,365	4,203	3,853
Bituminous Coal (daily average, 1,000 tons).....	2,138	2,108	1,842	2,028	1,917

TRADE

Miscellaneous and L.C.L. Carloadings (daily average, 1,000 cars).....	80	78	74	81	73
All Other Carloadings (daily average, 1,000 cars).....	55	55	51	67	49
Money in Circulation (Wednesday series, millions).....	\$20,524	\$20,387	\$20,436	\$18,014	\$15,666
Department Store Sales (change from same week of preceding year).....	+8%	†+15%	-6%	+11%	None
Business Failures (Dun & Bradstreet, number).....	33	24	31	51	82

PRICES (Average for the week)

Spot Commodity Index (Moody's, Dec. 31, 1931 = 100).....	248.8	248.4	247.5	244.9	244.8
Industrial Raw Materials (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)...	161.6	161.3	160.9	160.9	157.8
Domestic Farm Products (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)...	220.5	220.1	218.5	210.9	202.4
:Finished Steel Composite (Steel, ton).....	\$56.73	\$56.73	\$56.73	\$56.73	\$56.73
:Scrap Steel Composite (Iron Age, ton).....	\$19.17	\$19.17	\$19.17	\$19.17	\$19.17
:Copper (electrolytic, Connecticut Valley, lb.).....	12.000¢	12.000¢	12.000¢	12.000¢	12.000¢
:Wheat (No. 2, hard winter, Kansas City, bu.).....	\$1.64	\$1.63	\$1.66	\$1.40	\$1.36
:Sugar (raw, delivered New York, lb.).....	3.74¢	3.74¢	3.74¢	3.74¢	3.74¢
Cotton (middling, ten designated markets, lb.).....	20.70¢	20.52¢	20.09¢	20.60¢	20.52¢
:Wool Tops (New York, lb.).....	\$1.309	\$1.294	\$1.280	\$1.356	\$1.238
:Rubber (ribbed smoked sheets, New York, lb.).....	22.50¢	22.50¢	22.50¢	22.50¢	22.50¢

FINANCE

90 Stocks, Price Index (Standard & Poor's Corp.).....	92.4	93.8	94.3	92.7	83.6
Medium Grade Corporate Bond Yield (30 Baa issues, Moody's).....	3.72%	3.74%	3.79%	3.81%	4.10%
High Grade Corporate Bond Yield (30 Aaa issues, Moody's).....	2.73%	2.74%	2.72%	2.69%	2.77%
U. S. Bond Yield (average of all taxable issues due or callable after twelve years)...	2.34%	2.34%	2.33%	2.28%	2.31%
Call Loans Renewal Rate, N. Y. Stock Exchange (daily average).....	1.00%	1.00%	1.00%	1.00%	1.00%
Prime Commercial Paper, 4-to-6 months, N. Y. City (prevailing rate).....	1-1%	1-1%	1-1%	1-1%	1-1%

BANKING (Millions of dollars)

Demand Deposits Adjusted, reporting member banks.....	31,873	34,813	33,732	33,746	29,743
Total Loans and Investments, reporting member banks.....	52,177	50,287	49,527	46,954	41,708
Commercial and Agricultural Loans, reporting member banks.....	6,396	6,369	6,335	5,678	6,131
Securities Loans, reporting member banks.....	2,610	2,133	1,946	1,429	1,012
U. S. Gov't and Gov't Guaranteed Obligations Held, reporting member banks...	37,930	36,585	36,033	34,464	28,648
Other Securities Held, reporting member banks.....	2,816	2,801	2,791	2,919	3,270
Excess Reserves, all member banks (Wednesday series).....	1,540	1,020	970	1,030	1,700
Total Federal Reserve Credit Outstanding (Wednesday series).....	12,132	12,385	12,372	8,582	5,766

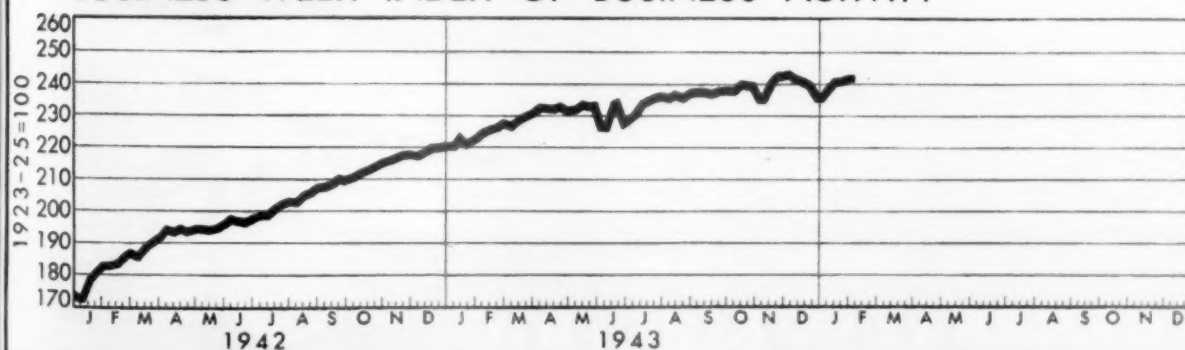
* Preliminary, week ended February 5th.

† Revised.

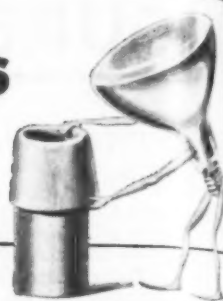
‡ Ceiling fixed by government.

§ Date for "Latest Week" on each series on request.

BUSINESS WEEK INDEX OF BUSINESS ACTIVITY



THE G-E LAMP THAT TURNS SHELLS INSIDE OUT



G-E REFLECTOR LAMP

REFLECTING MIRROR

1. Two things an artilleryman doesn't want to have happen: (1) A dud shell. (2) A premature explosion that can wreck the gun and crew. A big help in avoiding both is inside inspection of the shell before loading to make sure it isn't pitted, greasy, or dirty. This was difficult—until G-E lighting engineers helped work out a faster way . . .

2. Here's the gadget that "turns a shell inside out." A standard G-E reflector lamp with a mirror arrangement, that works something like a dentist's mirror. As the girl spins the shell on rollers she sees every bit of the inside. This is just one instance where G-E has had the lamps and the know-how acquired in peacetime, to solve war problems quickly.

3. And speaking of inspections, this giant electric eye which measures light output is one of 480 tests and inspections to make *your* G-E lamps "stay brighter longer." Don't waste light from these good bulbs. Share your reading lamp with others. Keep bulbs, shades, and reflectors clean. And turn off lights not in use.



"TO MAKE LAMPS STAY BRIGHTER LONGER"
The Creed of G-E RESEARCH

LET'S ALL BACK THE ATTACK—BUY ANOTHER BOND THIS MONTH!

G-E MAZDA LAMPS
GENERAL ELECTRIC



Hear the General Electric radio programs: "The G-E All-Girl Orchestra," Sunday 10 p. m. EWT, NBC; "The World Today" news every weekday, 6:45 p. m. EWT, CBS.

Ships: Postwar Glut or Shortage

The world will not have more vessels than it needs, but the United States, needing at most 20 million tons, will find itself with 50 million tons on hand for world trade.

By the end of 1944, the United States will have an ocean-going merchant marine of almost 50,000,000 deadweight tons.

This will be nearly four times as large as the U. S. merchant fleet in January, 1941.

It will be more than twice as large as the prewar British merchant fleet.

It will be 70% as large as the world's prewar fleet, and more than half of the world's postwar merchant tonnage.

If put to work in international commerce, it could carry 70% of the world's trade at peak levels (1929 and 1937).

• **The Problem**—What to do with these ships, once the war is won, has been agitating the best brains in U. S. shipping circles for some time. The U. S. Maritime Commission set up a postwar planning unit months ago.

Last week, American shipping interests created the National Federation of American Shipping to speed their own planning.

Shipbuilders, still deep in study, are yet to be heard from.

The new federation brings together all American shipping groups—owners who do not operate ships, operators who do not own ships, subsidized and unsubsidized lines, and industry fleets—to prepare "a sound program for the rehabilitation and maintenance of an adequate privately owned merchant marine."

• **Britain's Fleet Smaller**—This war, like the last, has made sweeping changes in the size and distribution of merchant tonnage among the nations. The size of the world's ocean-going fleet will be at least 20% above prewar levels. Shifts in ownership can be shown statistically (1939 world total equals 100):

	Prewar	Postwar
Great Britain.....	32	22
United States.....	18	68
Rest of world.....	50	30
World total.....	100	120

Thus the war will have decreased Britain's share of world shipping by more than 30%, increased the U. S. share by nearly 300%, and decreased the share of other nations by some 40%.

• **Surplus or Shortage?**—Inherent in most approaches to the problem is a sup-

position that the world will have too many ships after the war. Actually, it is possible that there will be a shortage of tonnage.

The physical volume of international trade in 1937 came close to tying the banner year of 1929. In 1937, 96% of the world's merchant tonnage (2,000 gross tons and over)—amounting to about 75,000,000 deadweight tons—was active.

To use a postwar world fleet of 90,000,000 deadweight tons at the 1937 rate of operations, the physical volume of international trade would need to be boosted only 20%.

• **Other Factors**—However, because the last war also expanded the world's ship supply, ships were not used as fully in 1929 or 1937 to carry world trade as they were in 1913. World trade in 1913 required almost 50,000,000 deadweight tons, whereas Maritime Commission studies show that the 1937 rate of ship-use would have called for 60,000,000 tons. Thus, if ships shuttled at the 1913 rate, the postwar fleet would not be strained until world trade rose 45% above 1937.

Other factors enter the equation. In 1937, 4% of the world's fleet was idle. Laid-up vessels ran as high as 21,000,000 deadweight tons (1932) and averaged (1922-38) around 10,000,000 tons.

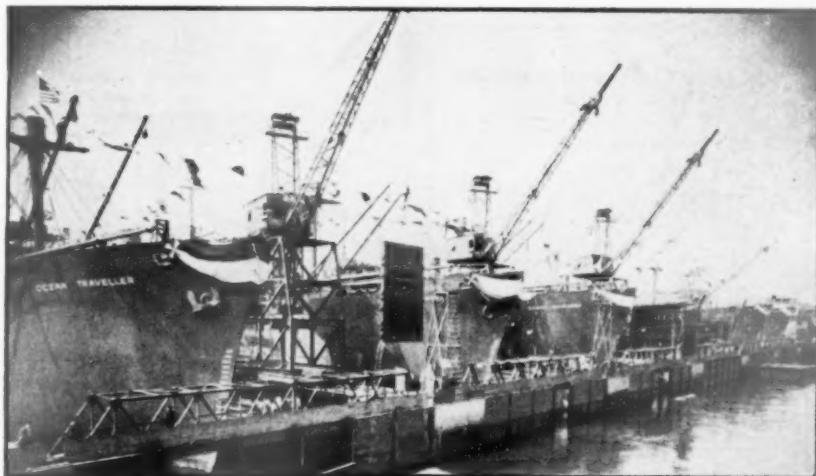
Each year substantial tonnage is broken up or lost, and a general postwar housecleaning might dispose of at least 5,000,000 tons of vessels.

• **Need 20,000,000 Tons**—A bigger U. S. merchant marine can be more fully utilized if America's share in world trade increases. The Dept. of Commerce, speculating on foreign trade after the war, has suggested that export trade might reach seven billions in 1948 (valued in 1942 dollars) and import trade \$6,300,000,000, if the nation achieves capacity production and full employment. At this level the physical volume of our trade would be considerably more than 50% greater than either the 1929 or 1937 levels.

But, even if the U. S. had Commerce Dept.'s projected \$13,300,000,000 trade, and even if we carried half of that in our ships, we would need only 10,000,000 to 12,000,000 deadweight tons for foreign trade. Up to 10,000,000 tons more will be needed for U. S. coastal and intercoastal traffic.

• **Adm. Land Upheld**—This is clear justification for Adm. Emory S. Land's suggested 15,000,000-to-20,000,000-ton U. S. merchant fleet after the war—since the projected foreign trade mark is not likely to be reached.

Adm. Land has also called for a sharp



This year Britain gets the last 150 to 200 ships to be transferred under arrangements made last year. All will bear in their names the distinguishing prefix "Ocean"—as do the five (above)

recently delivered by Todd-Bath Iron Shipbuilding. American ship owners are less worried about this deal, since they have been promised 10,000,000 tons of fast Victory ships during 1944.

rise—perhaps up to 50%—in the proportion of U. S. trade carried in American bottoms. This raises the tough question of shipping income and its effect on maritime nations, such as Britain, Greece, and Norway, which acquire dollars by carrying American trade (charts, below).

● **Too Much U. S. Tonnage**—Nub of the ship problem comes to this:

The world will not have too many ships after the war, but the United States itself will have too much of the world's total tonnage. For, as indicated, a 20% rise in world trade over 1937—a minimum goal if we are to have better international economic and political conditions—would use all the world's ships; and a 45% rise would tax world ship capacity. But the U. S. will have 50,000,000 tons as against a top "need" of 20,000,000.

● **The Solution**—There are many suggestions for solving this problem. The following are heard today in both government and shipping circles:

(1) Scrap worn-out and outmoded ships of prewar vintage.

(2) Scrap a large part of the slower Liberty ship fleet.

(3) Set up a defense reserve of idle shipping—5,000,000 tons according to current proposals.

(4) Sell or lease all but the finest and fastest merchantmen to foreign operators.

The last suggestion, already being used through lend-lease transfers which now total better than 3,000,000 tons, is receiving most support today among analysts of the postwar shipping situation.

N.A.M. CALLS PARLEY

Although none will attend because none has been invited, government officials will follow closely the National Assn. of Manufacturers' conference on postwar problems which will bring together a score of disparate groups in Atlantic City Feb. 18 and 19.

A.F.L. and C.I.O. representatives will discuss what's on their mind with officials of the U. S. Chamber of Commerce, American Farm Bureau, Committee for Economic Development, Rotary International, American Legion, and a lineup of other top business and civic organizations.

N.A.M.'s object in calling the conference, which will be "off the record," is to discover whatever common ground may exist among the various points of view on hand. Officials hope that the interchange of ideas in Atlantic City will increase the area of agreement upon the nature and solution of major transition and postwar problems.

Though definitely interested, Washington is not too optimistic about what will come out of the parley. It is felt there that agreement, except in the most general terms, on any of the really controversial postwar issues is almost impossible, but that a frank discussion among the delegates may help to clear the air.

U. S. Shipping and Postwar Foreign Trade

Here are three key factors underlying discussion of the future of America's merchant marine:

Between the World War and the present war, less and less U. S. trade (by volume) was carried in U. S. ships (Chart 1).

As a result, the U. S. paid foreign countries more and more for use of foreign ships. Foreign countries paid the U. S. less and less for use of U. S. ships (Chart 2).

Nevertheless, we received more from foreign nations for our goods

and services than we paid them for their goods and services, except between 1935-37 (Chart 3).

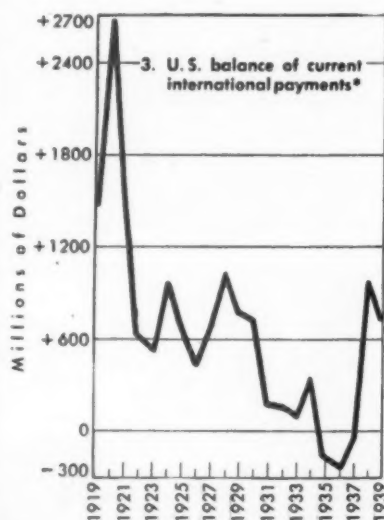
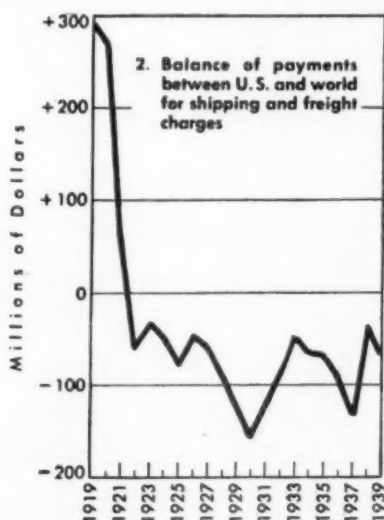
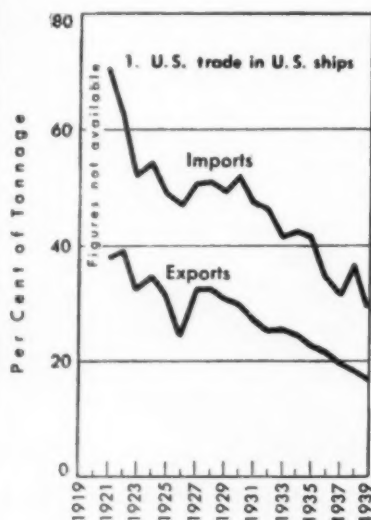
It is often argued that after the war U. S. ships should carry at least one-half of the U. S. foreign trade. This would reverse the trend in Chart 1 and balance international shipping payments.

Some argue we should aim even higher for a favorable balance of shipping payments. But U. S. exports are possible only if foreign nations obtain dollars from sales to us of goods and

such services as shipping or from U. S. capital lending abroad.

We had a favorable trade balance in the twenties (Chart 3) and also a large foreign trade only as long as we lent capital to foreign nations. When lending stopped in the thirties, trade collapsed as we still sold more goods and services than we bought abroad.

If we carry more of our trade in our own ships, we deprive the world of dollars. Unless we lend more dollars, exports will be affected. This, in any case, is the dilemma.



Data U. S. Dept. of Commerce

*Includes trade, shipping and freight charges, travel expenditures, personal remittances, and other current transactions except gold and capital movement

© BUSINESS WEEK

Termination Study

Army is preparing master course in contract cancellation for war contractors as well as for its own personnel.

The Army Service Forces has had in process of development for months a program which will carry to all important war production centers a classroom course in contract termination.

• **Three Districts Act**—Several district ordnance offices have anticipated the situation by operating such a training course for their own personnel.

Last December, the Chicago district ordnance office conducted a lecture course on termination. The Detroit district currently is holding five-day courses for anybody who cares to attend.

In conjunction with the School of Law at New York University, the New York ordnance district will hold a four-day seminar on contract termination Feb. 15, 16, 17, and 18.

• **Business Sits In**—All local plans, it was announced in Washington, are subject to higher authority. When the Army Service Forces readjustment division brings out the course it has in preparation, this may become the nation-wide standard, supplanting all locally developed courses.

Consensus was that the pioneer Chicago course did a good job. Accordingly, when another group of inexperienced officers arrived there last month, the lecture, modified by late developments and by the previous experience, was scheduled for repetition.

The grapevine had carried word to a few alert manufacturers who hold ordnance contracts in the Chicago district. They requested the privilege of sending representatives to get their termination training straight from the feedbox.

• **200 at Chicago Session**—In consequence, 200 men sat through a three-day lecture session last week in the Commonwealth Edison Co.'s auditorium. Nucleus of the student body was the group of ordnance officers newly assigned.

More than half of the audience comprised executives in charge of termination for major war contractors in the Chicago district. There was even a sprinkling of manufacturers from war industries in other ordnance districts.

• **Legal Phases Studied**—The course begins with an introductory discussion of district organization and methods of reporting, works its way through the legal theory and practice of termination, and concludes with a study of the final

field audit report on the settlement.

Along the way, it touches on such problems as appraising contractors' claims, handling of negotiated settlements, disposition of property, liaison with other procurement agencies.

Although the choice of subjects is designed primarily to educate contracting officers, the curriculum includes most of the big problems that have been worrying contractors.

Now facing Chicago ordnance is the problem of how to proceed with further training of contractors. The district contains about 17,000 prime and sub-contractors, most of whom would presumably like first-hand instruction in termination. Such a wholesale educational task is obviously beyond the capacity of the district office.

• **Civilian Training Planned**—Best current guess is that Chicago ordnance may stage its lecture course in the three or four largest war industry centers in its jurisdiction—Milwaukee, Minneapolis, and Davenport-Moline-Rock Island—and once or twice again in Chicago.

Emphasis henceforth probably will be on educating trade organization and Chamber of Commerce personnel, so that they can take over the direct job of educating manufacturers as part of their service to their members and their communities.

Chicago ordnance is reasonably sure, after two experiments, that the course can be compressed into two days to save everybody's time.

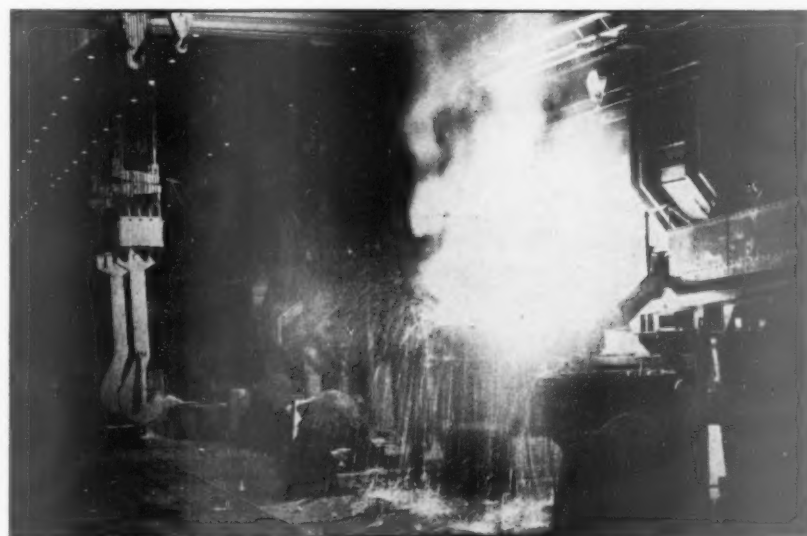
Sirup Plugged

OPA limit on imports may reduce output of beverages and candy by firms deprived of foreign sources of supplies.

OPA finally got around to plugging the hole in sugar rationing last week through which 77,400,000 lb. of sirup (sugar content) flowed from Cuba and Mexico—about half of which reputedly went to Pepsi-Cola—during the first ten months of last year.

• **Three Months' Grace**—Industry groups that do not use sugar sirups have been putting pressure on OPA to halt what some called a black market operation, but which its users consider as simply an astute business deal since the OPA sugar regulations specifically exempted from quota restrictions sugar imported in the form of flavored sirups. One of the last official acts of Prentiss Brown, who quit as OPA chief last October, was to instruct his sugar experts not to meddle in what he considered a quarrel between Pepsi-Cola and Coca-Cola (BW—Nov. 27 '43, p90).

The new order allows 90 days for sirup importers to wind up their business, the longest period of grace in OPA history. Reason is the big number of people affected: growers, shippers, inverters, cask and drum makers, brokers,



STEEL IN UTAH

In its new \$180,000,000 plant at Geneva, Utah, U. S. Steel Corp. taps the first heat of openhearth steel (above). But the glare is shadowed by doubts that WPB ever will permit this big

Defense Plant Corp. mill to produce its 1,308,000-ton annual capacity (BW—Dec. 18 '43, p16). Meanwhile, the eight other steel furnaces and fabrication facilities at Geneva are being completed to roll the first ship plates for West Coast yards in late March.

and bottler—not to mention candy manufacturers, who, according to OPA, made 23,000,000 lb. of confections out of the imported sugar (usually with honey added) in sirup through October of last year. Even the cane harvest that started last month and will continue to May contributed to the snarl.

• **Limited to 1941 Base**—Ration-free use of imported sugar-containing products after May 1 will be limited to the amount used in 1941, on a monthly basis, which will sharply reduce beverages and candies made by concerns whose sugar stockpiles have been augmented with sirup. Imports in 1941 were practically nil. Since then imports have been divided about equally between Cuba and Mexico.

Mexico put an embargo on sirup last September (BW—Sep. 11 '43, p. 87), but until present contracts are fulfilled, shipments continue. From Cuba, the sirup comes in via small boats that will presumably be freed for liquor shipments rather than sugar because most are too small to carry bulk sugar without risking damage from sea water.

• **Punitive Act Denied**—OPA denies that it is punishing any single industry with its action, but contends that sirup imports were clearly out of hand although their sugar content represented less than 1% of total U. S. sugar imports. Average monthly imports had climbed from 490,000 lb. in 1942 to 7,740,000 lb. in 1943.

Reserve Tokens

OPA is soliciting bids on another billion. Manufacturers who passed up first bidding are given a second chance.

Approaching the Feb. 27 deadline, when ration tokens are scheduled to begin circulating across the country's grocery store counters, OPA got cold feet for fear the two billion vulcanized fiber tokens now being manufactured by Osborne Register Co. of Cincinnati (BW—Jan. 15 '44, p. 14) might not be enough. So this week, OPA asked for bids on another billion.

• **May Bid on Plastics**—This will give manufacturers who passed up the first token contract a second chance to bid. Much to its surprise, OPA received only three bids on the first contract. One of these was completely out of line on price and the other fell far short on specifications. So Osborne landed the contract almost automatically.

OPA was particularly surprised at the failure of various plastics manufacturers—who had seemed much interested in the tokens—to bid on the first contract.

OPA specifications demand that tokens made under the second contract, as in the case of those made under the first, be of nonmetallic materials. This will

permit bids on plastic tokens. The Army's "psychological" argument blocked the use of scrap aluminum in the first batch of tokens. Now the military is willing for OPA to use the aluminum and WPB is begging OPA to take the metal off its hands, but the Treasury has decided metal tokens might be confused with coinage.

• **Consider Larger Size**—There is one important change in specifications under the new bid. OPA wants 200,000,000 more tokens in the size now made by Osborne (.642-in. diameter), but it is also inviting bids on larger sizes (.88 in. and 1 in.).

OPA wants to get an idea of what a larger token would cost for three reasons: (1) in case it decides to add a five-point token which would have to be differentiated in size from the one-point token being manufactured by Osborne; (2) in case a new point-rationing program—clothes, for example—comes along; (3) in case meats-fats rationing should be split up (this is unlikely) which would make it necessary to have two sizes of brown tokens.

Navy Sinks York

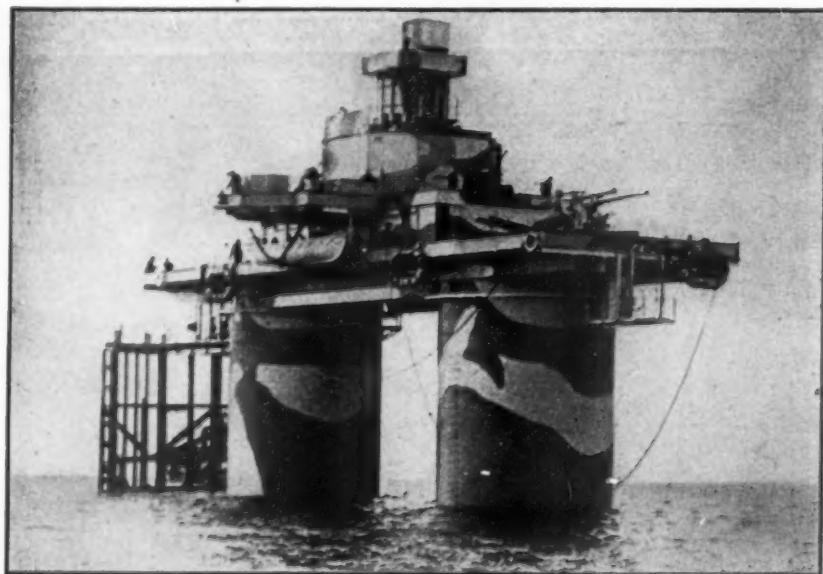
Seizure of York Safe & Lock Co. plants is shrouded in mystery. Management blamed, but there's no bill of particulars.

The Army-Navy E flag whipped mockingly above the plants of the York Safe & Lock Co. at York, Pa., this week. This pennant, awarded for excellence in war production, had been enhanced about a month before by the addition of a star in recognition of continued excellence. The company had earned these citations as part of the industrial team that made famous the York plan of partitioning contracts.

• **Navy Took Over**—Army and Navy supervisors pass on E-flag awards. In spite of this acknowledgment of performance, the Navy stepped in on Jan. 24 and took over the York Safe & Lock plants. Reason given was "unsatisfactory management conditions." It was denied specifically that there was any labor trouble.

York, Pa., is proud of its war record. This week the town buzzed with rumor—which took on an indignant undertone as neither the Navy nor the ousted company officials would explain the sudden crackdown.

• **Chain of Events**—There is evidence that the Navy kept raising its demands for output of Bofors guns; that as management increased production Navy demands kept two jumps ahead; that James V. Forrestal, Under Secretary of



ALWAYS AT ANCHOR

Along England's east coast stands a fleet of "warships" that will never sail. Actually, these units are camouflaged concrete fortresses (above) which protect coastal shipping against enemy

planes; but they hold Royal Navy commissions and are manned by Marines. Each station consists of two 50-ft. towers connected by a superstructure and anchored in bedrock. They mount heavy anti-aircraft batteries and plane-detecting equipment.

the Navy, decided a change in management could squeeze more guns out of the works; that he eased out the company executives via the usual presidential order to make way for some other management group.

In the meantime, Capt. D. F. Ducey, USN, sits in the hot seat as head of production. He has the hard-bitten look of the fighting man, though he flouts Navy tradition by wearing low black boots cut on the Texas model. Ducey is an arsenal expert, formerly worked at the Washington Navy Yard where in peaceful times unhurried lathes turned out the heavy rifles for warships. This school is famous for fine workmanship but not for mass emergency output. Deposed officials of the company will watch with interest the production record of the Ducey regime.

• **Eleven Stepped Down**—The Navy ouster order separated the corporate officials and functions from plant and production. Eleven executives above the level of plant superintendent were lopped off, including Harry K. Stone, chairman of the board, and Charles F. Sioberg, president. Only officer retained was the company comptroller, J. N. Bode.

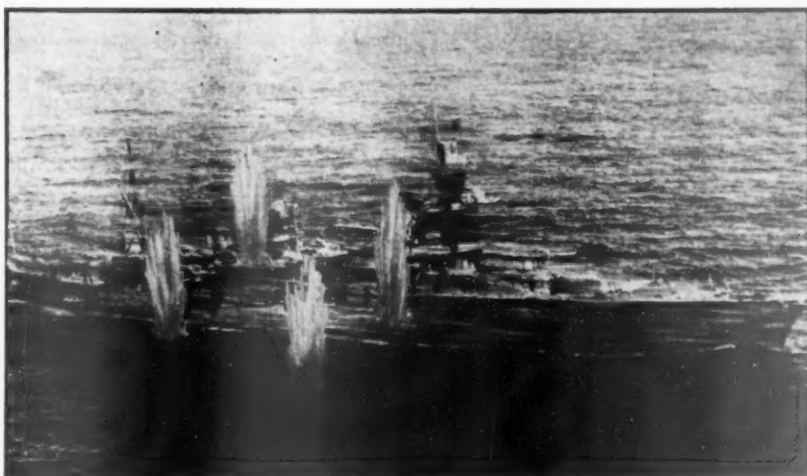
The Navy brought in lawyers and accountants of its own to prevent unnecessary snarls. Several of these have served in previous government seizures, are now experienced in take-over techniques.

• **A Different Case**—Executives of other industrial companies will follow the outcome of the Safe & Lock affair with special attention. In most instances where Uncle Sam has taken over to prevent a slowdown of the war effort, the justification has been labor trouble. It was thus when the government moved in on the S. A. Woods Machine Co., the Federal Shipbuilding & Dry Dock Co., the coal mines, and the railroads. It was partly true with Brewster Aeronautical Corp. But in the case of York Safe & Lock, the entire blame is put on management.

Ducey was careful to assure the United Steelworkers of America (which has bargaining rights for 4,500 of the 6,000 employees) that there would be no change in contractual relations with the union. To quiet the fears of the workers, Ducey pointed out that York Safe's special ordnance plant alone had \$100,000,000 in unfilled orders.

• **Hotel Space Taken**—The displaced group rented a sample room and four bedrooms in the Yorktowne Hotel.

This group has its own collection of files and records since it must continue to follow such non-Navy matters as civilian commitments made prior to the seizure date, and taxes. The executives insist that they are just as eager to win



BULLETPROOF WRAITHS

Because phantom ships don't sink, the Navy is putting them to work as targets for gunnery practice. They're actually optical illusions of real craft viewed through Polaroid's new offset prism wedge. When a practice session is in order, a fire control officer trains the wedge (right) on a friendly ship and sees two—the actual one, and at some distance away, the phantom. He directs the fire on the ghostly target, observes misses or hits (above). All that the gun crews see are splashes in an empty ocean.



the war as is the Navy; they cooperate with Ducey in every possible way. Telephone relations are cordial, and liaison messengers are available for the interchange of important documents.

• **Off the Payroll**—If you encounter a vast form that nearly blocks the hotel corridor, that would be Charley Sioberg, the company's grounded president. Imagine Santa Claus without whiskers and wearing tweeds—there you have a rough idea of Sioberg. He retains much of his jollity despite Ducey's announcement that the company officials are off the Navy payroll.

But he, like other executives of the company and Navy officers at York, refuses to discuss the seizure of the plant facilities.

• **A Case Study**—The experience of York Safe & Lock provides an entertaining case study of what happens to a medium-size industrial company when it expands with explosive speed to meet war demands. From about 350 employees in 1939, its payroll has grown to 6,000.

Famous for years as a manufacturer of safes, vaults, and strong boxes, the

company was a one-man show with S. Forry Laucks as president and head man. Its fortunes were pretty low when war broke. Laucks landed some of the first war contracts brought to York, became a leading figure in obtaining contracts for other plants in the community via the York plan. It was no handicap to the company that Laucks was the town's Democratic leader and a great friend of Washington's New Deal potentates, including Pennsylvania's Sen. Joe Guffey.

• **Turned to Bofors**—By the end of 1941, York Safe & Lock was sailing along on an even keel. Then the Navy fell in love with the Bofors 40-mm. antiaircraft gun. This Stuka stinger is mounted either in pairs or in fours, is affectionately dubbed "the Chicago piano" by the sailors who serve it.

The Navy went on a hunt for more production capacity. York Safe & Lock got the contract for a new plant to make the guns. Chase National Bank lent the company \$8,000,000 for this special ordnance plant. It was an "emergency plant facilities" loan and the government was to provide, in its payments for the guns, sufficient funds for the



While York Safe & Lock's management is in exile, Capt. D. F. Ducey, an arsenal expert, is in command of anti-aircraft gun production.

company to wipe out the debt in five years.

• **Sioberg Installed**—In April, 1942, while the plant was still under construction, Laucks died. Chase Bank became his executor and put in Sioberg (who started with the company filing castings 40 years ago) as president. The plant was not ready to start rolling until late 1942.

Almost immediately the Navy began raising the ante on requirements from the plant. When they were attained, higher goals were set. To satisfy the demand that the plant produce still better results, Sioberg called in McKinsey & Co., New York management engineers. It is claimed that the consultant's recommendations were put into effect and that the company was able to turn out more Bofors with less labor.

• **Stone Group Bought Stock**—Meanwhile, Chase National was hunting a buyer for York Safe & Lock stock in the Laucks estate. Last October it made a deal with Harry K. Stone "and associates." Stone is a probate judge in Brockton, Mass. Also he is chairman of Converse Rubber Co., is interested in other companies.

The associates bought from the Laucks estate 8,890 shares of York Safe & Lock—all but 1,110 shares of the total outstanding. The price was said to be \$250 a share, or \$2,222,500 for the block. It is the Stone group that was put over by the Navy.

• **Gossiper's Holiday**—In the absence of detailed explanation, York is having a gossip's holiday over the mystery. There are charges that the payroll was loaded "until people were falling over each other," but it is also known that the Navy insisted on intensive hiring

to get out those guns. There is the usual yarn about the decrepit sweeper in the garage who went out to the ordnance plant and made \$90 a week.

Ordinarily the Navy doesn't bother with such matters as long as a company delivers. It lets the U. S. comptroller general look for the bugs in the company bills. This makes all the more puzzling to villagers the Navy attitude toward Safe & Lock executives. The town hears that, rather than falling down on deliveries, the company has met all schedules or done better than the original demands.

• **Officials Silent**—When confronted by these points, the deposed company executives just shut their jaws tighter and say grimly:

"During a war, you can't fight the Navy."

Farm Mileage Cut

ODT coordination of truck facilities saves 37,250,000 miles a year in dairy industry, typical of the rest of agriculture.

In the over-all effort of the Office of Defense Transportation to conserve civilian trucks (BW-Dec.11'43,p28) and truck tires by eliminating crosshauls and by coordinating deliveries, a network of direct hauls has been established that touches virtually every agricultural county in the U. S.

• **Typical Results**—The effort has been concentrated in the movement of such farm products as livestock, cotton, citrus, grains, tobacco, fruits, and vegetables. Fairly typical of the results achieved in the direction of conservation are those realized by the dairy industry, which ODT estimates has shortened its annual haulages by 37,250,000 truck miles.

The dairy industry transportation program is supported by 2,600 of the 3,022 agricultural counties in the country. The pattern of organization is similar to those applied in other industries.

• **How It's Organized**—ODT notifies the milk producers, haulers, and processors in a milkshed to assemble and elect representatives to an area transportation committee. Before ODT approves the committee, WPB and the Dept. of Justice look it over—the former because of the trucks, tires, milk cans, and processing equipment involved, the latter to be certain that the setup doesn't contain the embryo of a combination in restraint of trade.

The committee may find when it gets down to work that of the 25 farmers along a certain highway, 18 have been

selling cream to one co-op creamery and the others have been independents. Perhaps two of the independents have been hauling their cream in their own trucks. All 25 are now informed that after an announced date only one truck will pick up dairy products on this route. • **When They Yelp**—The haulers' certificates of war necessity are then called in to be trimmed to the new mileage economies. That's when most of the yelping starts, but the realization that everybody is in the same boat soon silences the complaints.

It isn't simply a job of loading all the milk into one truck. The farmer who was accustomed to shipping only his cream to the processor and saving the skim milk now may be shipping whole milk in conformity with the request of the War Food Administration. • **Another Problem**—Not only does this increase the bulk of his shipments by many times (cream is only about 10% of the volume of whole milk), but also creates an additional transportation problem if the farmer wants to buy skim milk for his animals, or whey, or buttermilk. All these complications have



FISHING TRIP

Opinion polls show labor cooling toward the New Deal. But that's only one reason Vice-President Henry Wallace is stumping the West Coast. The other: to bulwark his own chances of renomination. His appearance at a United Auto Workers rally in Inglewood, Calif., typifies Wallace's current efforts to plight his troth to his most dependable bloc of support—labor. J. H. Kindelberger, president of North American Aviation, shares the platform with him.

be adjusted by the area committee. Wisconsin's Job—A typical setup is the work done by 13 area committees in one Wisconsin district where there were 35,052 producers, 610 haulers, and 392 processors. Approved plans have cut the annual mileage from 18,23,730 miles to 14,904,227, with a saving of 341,951 gal. of gasoline and 27,964 man-hours.

The No. 1 dairy state has area committees for 69 counties (the other two did not require them); 52 have submitted completed plans of which 48 have been approved.

Some Apprehension—Of course, farm organizations have not extended their cooperation without some apprehension. They are looking at the postwar years, when the wraps come off and the farmer is free to market his milk as he chooses. Will the independent, who has been driven by the emergency into selling his milk to the co-op, continue to market it that way? Will the co-op farmer now moving his milk into the big commercial creameries decide to stick to those channels of distribution?

The ODT is anxious not to upset existing producer-hauler-processor relationships, and the same is true of other government agencies. The Dept. of Justice, by its scrutiny of the area committees, is trying to prevent the creation of combinations of doubtful legality against which it will have to turn its antitrust guns after the war (BW—Feb. 5 '44, p. 5).

CMP Looks Ahead

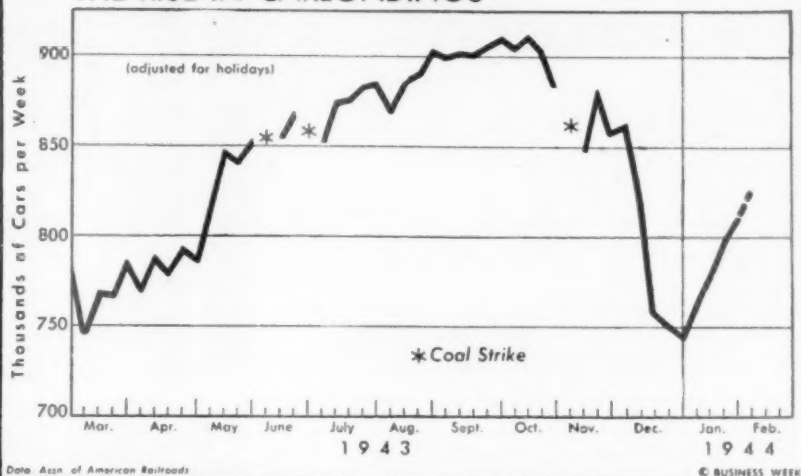
It probably will continue, with modifications, when civilian production resumes. Critics admit its impressive record now.

When WPB officials announced the Controlled Materials Plan in November, 1942, most of them thought of it as the last desperate effort to cope with the shortage of basic metals that was holding up war production. By now metal scarcity is no longer a problem, but WPB doesn't consider this any reason for dropping CMP.

For Reconversion?—For more than a year, WPB has been working on the theory that by regulating the movement of the three controlled materials—steel, copper, and aluminum—it could exercise fairly close control over all production. With CMP as a foundation, it has built up a system of regulation that it expects to use not only for the rest of the war program but also for the first stages of reconversion.

Even CMP's critics agree that it has

IN THE OUTLOOK: THE RISE IN CARLOADINGS



Railroad carloadings—defying seasonal patterns under the impetus of headlong industrial output—are pushing up rapidly toward the peak reached last October. Top of the spring freight movement will come in the next few weeks, and with it will come the first test of how seriously dwindling manpower is hampering the carriers (page 9). How well

the roads get along this spring will give some indication of their ability to cross the fall hump. Better measurement even than carloadings of the railways' accomplishment is freight traffic expressed in revenue ton miles; the total was 447,322,000,000 in 1929, 360,620,000,000 in 1937, 475,054,000,000 in 1941, 638,069,000,000 in 1942, and 725,000,000,000 in 1943.

hung up an impressive record since it went into operation in April, 1943. It has not proved the answer to all production problems, as some of its sponsors hoped, but it has become the main-spring of WPB's control system.

But It Worked—What is most important, it has worked for almost a year without requiring any fundamental amendment. In this sense, it has measured up to the hopes of its author, Ferdinand Eberstadt, former vice-chairman of WPB, who explained that CMP would have to be the last plan for distributing materials, "not because there is any limit to human ingenuity but because there is a limit to human patience."

Simple Yet Complex—In principle, CMP is fairly simple, in practice appallingly complex (BW—Dec. 12 '42, p. 42). The basic idea is to establish a series of schedules for production of finished goods and their component parts, with each schedule keyed to every other schedule, and with all schedules adjusted to the available supply of raw materials.

If the programs are accurately coordinated, aluminum, for example, will move from the producing plant to the airframe manufacturer at the same time that steel is moving from the mill to the

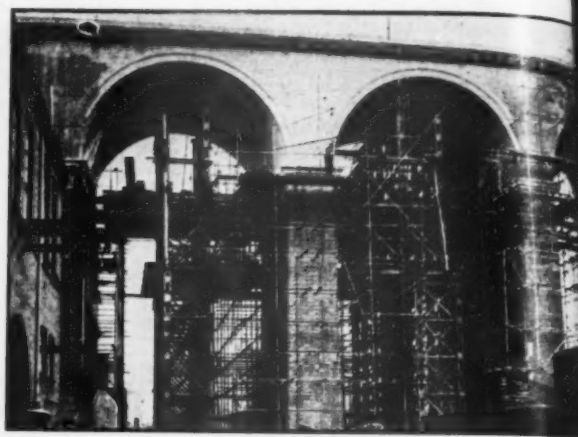
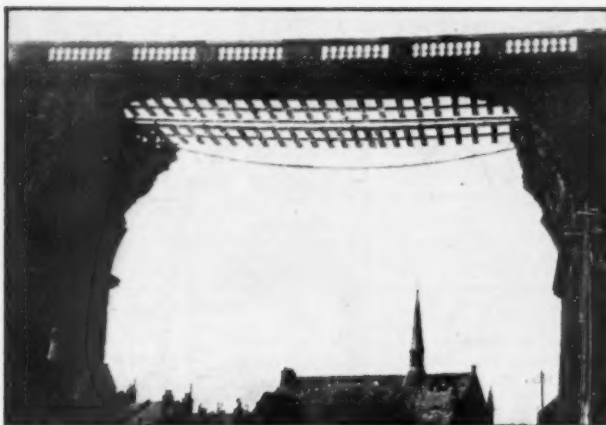
engine maker. In theory—and to an impressive extent in practice—the engine will be delivered to the assembly line just when the frame is ready for it.

No material will be tied up in assemblies that lack one or two parts or in parts for which no assemblies are ready.

Supposed to Stick—The claimant agencies then subdivide their allotments among their contractors, setting up definite delivery schedules for each. Manufacturers are supposed to stick religiously to their schedules. To get ahead of the timetable is as bad as to lag behind, because excess production ties up materials that should be used elsewhere.

Fairly Comfortable—Partly because of CMP, partly because of the drive to increase production, supplies of the three controlled metals now are fairly comfortable. Aluminum output is running an embarrassing surplus over all military and essential civilian demands. Steel supply is at least equal to requirements, and copper, in spite of conflicting statements, is adequate.

If CMP's only function were to dole out steel, copper, and aluminum, WPB might have a hard time justifying its retention. But CMP also is one of the principal means of conserving factors



that are scarce—forest products, fuel, transport, manpower.

● **Indirect Regulation**—The idea is that by maintaining a tight hold on steel, copper, and aluminum, WPB to some extent at least can keep manpower from going into manufacture of say toys, when it is needed for aircraft. Moreover, in adjusting the schedule for military goods, the limiting factor to a program may be a scarce material like rubber or one of the chemicals, but the easiest way to scale down the program may be through the allotment of the controlled materials.

Officials disagree on the question of just how effectively CMP works as a method of over-all regulation for the economy. Most of them think that combined with a number of supplementary measures it will do better than anything else at this time.

● **The Weakness**—From the standpoint of central control, the great weakness of CMP is the fact that several important areas of the economy are only indirectly affected by the movements of the three basic metals. To regulate all production through CMP, officials would need a much larger package of controlled materials, a list so comprehensive that no major production could be built without using at least one of them.

Steel and copper undoubtedly belong in such a package. Aluminum probably does not. Aluminum was included as one of the key metals because it was badly needed for certain lines of war production, such as aircraft, and because it was desperately short at the time CMP was started. But aluminum played a relatively small part in the pre-war economy. Now that the general control aspect of CMP is overshadowing metals conservation, many officials wish that it had not been necessary to classify aluminum as a controlled material.

● **What About Wood?**—More important than inclusion of aluminum in the



control package is the omission of one that belongs in any group intended to serve as the least common denominator of the economy—forest products. When CMP got under way, wood and its products—paper, containerboard, pulp—were still fairly plentiful. Today, wood is one of the most serious of the material shortages, and it threatens to grow worse.

To meet the stringency in forest products, WPB probably will work out a system of control similar to CMP, though not so rigid. Taking important wood products one by one, it will set up definite allotments and in some cases establish what amounts to an authorized schedule.

Containerboard, in great demand by the Army and Navy, probably will be the first to approach a scheduling system.

● **Reluctant to Change**—A few of WPB's planners think wood products could be brought under CMP, but operating officials don't want to try it. For one thing, they are reluctant to tamper with a smoothly running system. Besides that, they point out that the wood products industry is tremendously

FAST BRIDGEWORK

Faced with staggering reconstruction tasks, Britain's engineers are forsaking painstaking building methods for those of speed. An example is the repair of an important rail viaduct at Brighton. Within five weeks, train service was resumed (left) after trestles and falsework were thrown up to bridge a 70-ft. gap (above left), blasted by a raider's bomb, and to brace weakened adjoining piers. Cement was then poured to form a new pier and a face of bricks was laid (above right) to match the rest of the structure.

complicated and that production is scattered instead of being concentrated in relatively few places as it is with metals. They think it better to work out a specialized system of control.

CMP, of course, is not the only procedure that WPB has for controlling the movement and use of materials. In addition to the priority system that preceded CMP, WPB has a long series of conservation and limitation orders through which it regulates scarce materials—metals such as magnesium, beryllium, tin; fibers such as rayon and nylon; and many others.

● **Adds to Paper Work**—When a manufacturer has received his allotment of the three controlled materials, he still has to make separate application for an allotment or authorization to use the various other regulated materials. This adds to the paper work and leads to a certain amount of grumbling, but so far no one has figured out a way to combine all the operations in one package.

Last summer, some WPB officials were promoting a plan, tagged CAP—Coordinated Adjustment Procedure—that would have allowed a manufacturer

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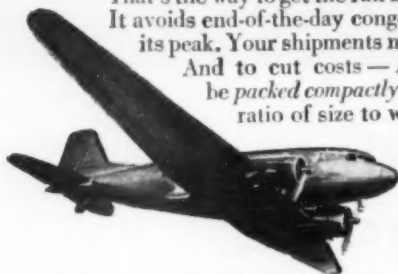
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to make a single application for all the scarce materials he needed (BW—Sept. 18'43,p14). This would have been handled by WPB industry divisions instead of by the materials divisions which administer the M orders that now govern allocations.

• **Used as a Threat**—CAP never got beyond the talk stage. In fact, several of the officials who backed it profess that they never intended to get it adopted. They merely wanted to force as much simplification of M order procedure as possible by using CAP as a threat. After much internal debate, WPB decided that no application form could be devised to cover all the regulated materials. It compromised by initiating a simplification program designed to eliminate 40% of the paper work in applications for materials.

Another complicating feature of WPB's control system — production scheduling for certain critical components under general scheduling order M-293 — gradually is fading out of the picture. Scheduling under M-293 differs from CMP scheduling in that it is intended to make the most of scarce facilities or limited supplies of specialized labor while CMP is intended primarily to make the most of materials.

As facilities bottlenecks are broken, M-293 scheduling is becoming less and less important. WPB now has a plan in the works that would narrow its scope.

• **Logical Sequence**—Looking ahead to the time when major industries begin working back to peacetime production, WPB planners think they see a logical sequence for dismantling the control machinery. As materials and manpower become easier, the various special limitation and conservation orders can be dropped. Scheduling under M-293 will be abandoned, item by item, until the whole order can be withdrawn.

As long as a system of central control is needed, CMP probably will continue, despite a question as to its legality as an instrument of reconversion. In the early stages, new civilian production will be programed like war production. This will give WPB an opportunity to adjust competitive relationships at the same time that it insures production of the most necessary civilian goods.

Once an industry is well started on civilian work, WPB probably will give it an allotment under CMP but will not hold it to authorized schedules. After that, it can drop the allotment procedure altogether and go back to the priority method, giving preference to essential work but allowing every manufacturer to do the best he can for himself.

• **Might Be Combined**—If war production is cut back drastically after the German collapse and if reconversion gets

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glimpses into the wonder world of tomorrow



"Hey, Joe! Toss me a dozen eggs"

When Joe tosses the dozen eggs, he'll do so without any fear of breakage. And when Mrs. Housewife of Tomorrow sends little Willie out for a dozen eggs, she'll know they won't come back broken.

For these eggs of the future may come in small Cellophane-wrapped cubes. They're dehydrated and compressed, developed to save space on shipments around the globe. Developed to insure against loss through breakage and spoilage. These advantages will make them useful not only in wartime, but long after the war is won.

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The packaging knowledge we have gained during eighteen peacetime years of research and development is now being amplified in the solving of many wartime packag-

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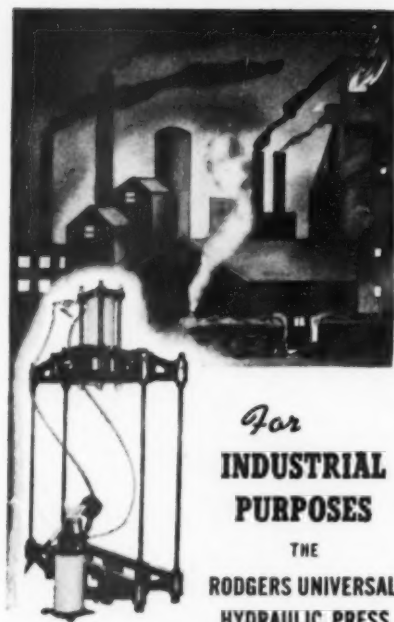
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HYDRAULICS

under way smoothly, several of the steps toward relaxation may be combined into one. Most officials think that an elaborate system of central control will be unnecessary as soon as war production gets down to the point where manpower and materials will support both it and an adequate program of civilian supply. When that day comes, WPB probably will let CMP drop and go back to its old priorities system.

Gas Supply Cut

WPB asks for voluntary conservation to insure fuel for war plants. New pipeline will not be in use until fall.

War Production Board issued a warning last week end that demands for natural gas in the Appalachian area—Ohio, Pennsylvania, New York, West Virginia, and District of Columbia—currently exceed the supply, and that strict conservation is in order.

• **Nelson Takes Action**—WPB Chairman Donald M. Nelson sent messages to gas distributing companies urging them to tell their customers that unless they cooperate in voluntary conservation, war industries may be crippled.

At present, WPB controls industrial gas supplies by requiring the board's approval before any industrial user can be cut off from its regular gas supply, even temporarily.

• **Dall Looks Ahead**—If he had the inclination to do so, Curtis Dall, a former son-in-law of President Roosevelt, at present a lieutenant-colonel in the Army Air Forces, could use the WPB's current view of the gas situation as a testimonial to his own foresight.

Organizer and former president of Tennessee Gas & Transmission Co., Dall promoted the new Texas-to-West Virginia gas pipeline which is intended to eliminate the existing supply deficit in the Appalachian area of 185,000,000 cu.ft. a day, based on expected peak demand after Mar. 1. The pipeline construction schedule calls for completion next fall. Rated capacity will be 207,000,000 cu.ft. a day. Peak demand of the Appalachian area is placed at 2,285,000,000 cu.ft. daily.

• **Cause of Shortage**—Two factors have brought about the tight supply situation: (1) the unprecedented activity of all kinds of industries that use gas in heat-treating metals; (2) a decline in productivity of natural gas fields in the East, principally in fields that tap the so-called Oriskany sand.

The Gulf region of Texas, on the other hand, has immense gas reserves

which geologists estimated could keep the new pipeline supplied, without tapping Texas of fuel it needs, for the next 30 years.

Objections from Texas seemed to fade away in the light of a 5¢ price (per 1,000 cu.ft.) which is to be increased 1¢ every five years to a maximum of 8¢. Witnesses at a Texas state Senate hearing agreed that 5¢ was above average, and that many wells in the last few years had been forced to shut down due to lack of a market.

• **Race for Franchise**—Tennessee Gas, organized about four years ago to promote a Louisiana-to-Tennessee line, later proposed a line from Pintas Creek, Tex., near Corpus Christi, to Kenova and Cornwell, W. Va. Hope Natural Gas Co., subsidiary of Standard Oil Co. (N. J.), had parallel plans for a line into West Virginia from the Hugoton gas field in Kansas.

As forecast (BW-Sep.11'43,p.8), Tennessee Gas won the race. WPB had decided that neither company had a substantial advantage in point of supply or economy in necessary pipeline steel and equipment, and announced it would assign priorities to the first one receiving a certificate of public convenience and necessity from the Federal Power Commission. Tennessee Gas, favored by an early filing date, had gone through FPC hearings. Hope had not.

• **Tennessee Gets Permit**—Last Sept. 20, about four weeks after WPB took this position, FPC granted a certificate to Tennessee Gas. Dall and his associates, who had included the late Victor Johnson of Chicago, the Chicago engineering firm of Brokaw, Dixon & McKee, and a Nashville group led by Wade Thompson, met in Chattanooga that same day and sold control of their company to the Chicago Corp.

Chicago Corp. retired all the outstanding 3% preferred and paid operating expenses of Tennessee Gas, and acquired 90% of the common stock in a deal involving approximately \$500,000. The original promoters' profits, if any, will be in future value of their 10% interest in the reorganized company.

• **Chicago Corp. Controls**—Chicago Corp. executives have replaced Dall's group in active management, and the company now is financing its 1,200-mile, \$48,000,000 pipeline project with private capital, under arrangements not yet made public.

Half the pipeline's load will be delivered to subsidiaries of Columbia Gas & Electric Co., half to Hope Natural Gas, which sold Tennessee some of its rights-of-way and joined in the project as a buyer after losing the race for a franchise.

• **Welded Pipe Used**—Construction is reported well along. River crossings al-

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... completed include those in the Tennessee and Cumberland in Tennessee, and the Ouachita in Texas.

Pipe being used is 24 in. in diameter, as big as the Big Inch oil pipeline, but of somewhat lighter construction than the lines. Big Inch pipe is $\frac{3}{8}$ in. thick, compared with $\frac{1}{4}$ in. for Little Inch oil products line. The 900 miles of welded pipe, ordered for the Tennessee Gas line from A. O. Smith Corp., are made of steel. The remaining 300 miles, seamless pipe ordered from National Tube Co. (U. S. Steel), are $\frac{3}{4}$ in.

1,800,000 Tons of Pipe—Smith began making welded pipe for oil and gas lines in 1927, and has turned out about 1,800,000 tons of it in the past 15 years. The company manufactured 300 miles of welded pipe for the Little Inch pipeline. None of the defects which resulted in breaks in the line (BW—Jan. 15 '44, p. 49) occurred in sections in which Smith Corp. pipe was used.

"Smithweld" process includes resistance welding, which puts together a 40-ft. pipe section within a few seconds, and hydraulic pressure expansion inside the pipe, which is held to exact outside dimensions by being clamped into a heavy steel die.

Because pipe is sold by the ton (\$66 a ton for the Tennessee pipe), Smith is able to claim savings in both steel and freight. Advocates of seamless pipe, however, hold that heavier pipe is worth the added cost.

California Objects

Allocation of water from Boulder Dam to Arizona draws stiff protest. Supreme Court may have the last word.

It was California against the field last week as Secretary of the Interior Harold L. Ickes listened to the pros and cons of the squabble over division of the waters from Boulder Dam among the states which depend on that source of supply for their agricultural and industrial development (BW—Jun. 5 '43, p. 18).

• Arizona Is in Line—For 16 years, Arizona had held itself aloof from the Colorado River Compact, by which Colorado, New Mexico, Wyoming, and Utah in the upper basin and California and Nevada in the lower basin decide how the waters shall be allocated. But now, with an acceptable allocation for itself in prospect, Arizona signified willingness to enter the compact.

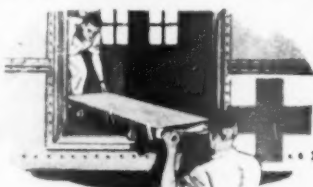
When the terms of acceptance were laid before Ickes, as administrator of the compact, by his advisory Committee

U. S. Army Hospital Cars

In Action!



MOVING WOUNDED TROOPS is one of those jobs in the battle of the rails that might go unnoticed. But every American will be interested in the story of how Uncle Sam converted 85 Standard Pullman cars into rolling hospitals ... and overlooked nothing that provides utmost safety and comfort—even to complete air conditioning with Sturtevant Equipment.

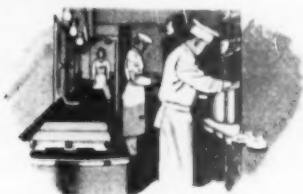


1. NEW U. S. ARMY HOSPITAL CARS speed the movement of wounded from evacuation hospitals to embarkation points overseas... permit immediate transfer from hospital ships or planes to base hospitals, at home. Special doors shown facilitate handling of stretcher cases.



2. HOSPITAL TRAIN comprises medical unit car and several ward cars, each fully Sturtevant Air-Conditioned and equipped with 16 double-deck beds. Upper berth can be pushed back to provide seats for men able to sit up.

3. HOMECOMING BATTLE HEROES receive the same care and attention as in a metropolitan hospital. Doctors and staff are in constant attendance. Modern Sturtevant-ventilated kitchen, shown, prepares finest food for up to 500 persons at one meal.



4. EXAMINATIONS, daily dressings and emergency operations are handled in fully equipped operating room. At a major operation shown below, surgeon is assisted by anesthetist, medical specialist and nurse.



THIS IS JUST ONE OF A HUNDRED LESSONS in "Air at Work"—learned at war—that are going to help you after Victory. Engineered air... to air conditioning, heat, ventilate, convey, control dust and fumes, or burn fuel more economically... will make the difference between profit and loss for many a post-war venture. Sturtevant is ready to work with you or your planning committee to start solving these "engineered air" problems now.

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Puts Air to Work



"INSPECTION!"

When you want to know GO TO AN EXPERT

WE CAN, for instance, think of no one better qualified to give you sound advice on choosing papers than your printer.

In fact, we'd be delighted to have you get his impartial opinion of Rising Papers. His own reputation for fine work depends largely on the quality of paper he uses—and these same printing experts have been using the various Rising papers for many, many years.



Prices on a par with other quality papers. Among many lines: Rising Bond (25% rag), Rising Line Marque (25% rag), Finance Bond (50% rag), Rising Parchment (100% rag). The Rising Paper Company, Housatonic, Mass.

ASK YOUR PRINTER—HE KNOWS PAPER

GROUP I SHRINKS

Further evidence that metals no longer hold the key to military output is contained in the War Production Board's eleventh issue of its Material Substitutions & Supply List. Among the nine metals in Group I (insufficient supply for all war and other essential uses), only tin, nickel, and malleable cast iron are major.

More striking is the fact that aluminum, magnesium, copper, lead, zinc, and a substantial list of steel items now are in Group II (sufficient for essential needs), and that other once-frightening supply situations such as those of mercury, antimony, pig and cast iron, and molybdenum have relaxed to the point where these metals have been dropped to Group III (readily available for essential uses).

Conspicuous change from the days when metal supply circumscribed the entire war effort is to be seen in the growth of other entries in Group I. Most imposing list now is that comprising plastics and chemicals; only a little shorter is that for lumber. Textile fibers (including nylon, high-tenacity rayon, and silk) and those for making rope and cord (agave, hemp, and manila) continue scarce along with many other familiar items—rubber (natural and synthetic), quartz crystals, certain grades of mica, imported vegetable oils, high-grade bauxite, fluorspar, penicillin, and pyrethrum.

Bright spots in the textile picture are the extreme ease in wool and the relatively favorable position of cotton.

of Fourteen, California was the only objector. The other states agreed that Arizona get 2,800,000 acre-feet of water a year, exclusive of the 1,000,000 acre-feet it derives from the Gila River, which lies entirely within Arizona. California held out for inclusion of the Gila waters in the 2,800,000 total.

● **Worried by a Hedge**—California has already agreed, pursuant to the Boulder Dam Project Act, to limit its takings to 4,400,000 acre-feet a year, plus half the unappropriated water which gets by the states in the upper basin. And the U. S. has agreed to deliver, if available, 5,362,000 acre-feet a year to California.

What worries Californians is that the larger allocation to Arizona will so reduce the flow of unappropriated water that the "if available" hedge in the

THE Ship

that bought itself

How an oil company enlarged their wartime fleet without disturbing their operating funds

THE TANKER was on the ways . . . almost ready to launch . . . when a sudden change in Government war requirements halted work on it.

A certain oil company got word of the nearly completed vessel. It would fit their needs exactly! But wartime expansion was already keeping their capital busy. And it looked as if this desirable addition to their fleet would be missed for lack of ready cash.

Then one of the directors suggested C. I. T. In an amazingly short time, C. I. T. "credit architects" had developed a plan whereby C. I. T. would advance all the money necessary to finance the purchase and complete the equipping of the tanker.

Today, this vessel is speeding the company's

war-vital cargoes . . . turning in steady profits that will repay the money advanced by C. I. T. . . . in fact, "buying itself" without the necessity of the owners depleting their operating funds or reserves.

WARTIME BUYS are still available now and then . . . profitable buys in vital and valuable equipment, material and supplies. But they're only for those who are quick on their financial feet and equipped with the cash to act fast.

Perhaps you know of some such buying opportunity that would profit *your* business. If cash is needed to take advantage of it, get in touch with C. I. T. Write or wire, and an executive will call without obligation.

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Cash to pay taxes, retire stock, existing mortgages or other loans.

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And they're all efficient besides. With more than 40 years of lighting leadership, GUTH has the engineering experience to build real quality into GUTH Lighting.

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"LEADERS IN LIGHTING SINCE 1902"

government's contract may become a reality and obstruct future expansion of Southern California.

• **Approval Expected**—Ickes is expected to approve the Arizona agreement. He has found that the simplest way of refereeing such interstate contests over the waters of the Colorado has been to follow the recommendations of the Committee of Fourteen, which is composed of two representatives from each of the states.

There is a possibility that the U. S. Supreme Court eventually may be called upon to settle the dispute. Californians, led by Gov. Earl Warren, contended before Ickes that the Arizona contract violates western water law by appropriating water supplies belonging to California and other states. Such language, in the West, has a strong courtroom flavor.

Food Worry Rises

Supplies adequate now, but meats, milk, and eggs may be critical by fall. WFA may boost payments to dairymen.

Winter always is the critical season for foodstuffs. The present winter is tight enough. But Administration officials are beginning already to worry—economically and politically—over the food outlook for next fall and winter, over possible shortages of meats, milk (page 34), and eggs.

• **Last Quarter Shorter**—Food supplies are good at the moment; the total for 1944 may equal the 1943 volume, but seasonal changes are expected to work toward smaller supplies during the last quarter of the year.

Even though feed crops turn out well this summer, the production of meats, milk, and eggs after midyear is expected to fall below the output during the corresponding period of 1943.

• **Less Pork, More Beef**—The reduced 1944 spring pig crop will mean smaller supplies of pork and lard during the last quarter, and less lamb and mutton will be available from the reduced bands reported this season.

There'll be less tender beef next summer and later, because fewer cattle are being fattened this winter than last; but there may be more ranch beef if cattle-men sell off grass all the critters the War Food Administration is asking them to sell direct from the ranges.

Fewer chickens, broilers, and turkeys are in the fall picture.

• **Milk Shortage Looms**—Officials are more concerned over a prospective shortage of fluid milk and dairy products as

the production of these declines to seasonally low volume next November.

In an effort to reverse the falling tide of milk production, WFA is now planning (contingent upon congressional consent) to boost by 50% the feed payments to dairymen during March, April and May.

Payments for milk would be hiked from a minimum of 35¢ per cwt., paid in February, to 50¢, and the maximum would be raised from 50¢ to 75¢. For butterfat, the payments would be hiked from a minimum of 5¢ in February to 6¢ a lb., and the maximum from 6¢ to 9¢ during the ensuing three months.

Government feed payments through grass-time would be reduced, but then hiked again after the drying of summer pastures when dairy cattle go on feed. Payments next fall would be conditioned upon the availability and cost of feed and labor at that time.

• **May Have Surplus Feed**—Some government livestock feed analysts believe that because the livestock population will be sharply reduced by fall and because farmers may exceed the government feed crop acreage goals (planting more corn and fewer soybeans), there'll be a surplus of feed over livestock next fall and winter.

This could mean lower prices of feed next fall and an improvement in the ratio between prices of livestock and prices of feed, tending to encourage bigger livestock production in 1945.

Concerned over this possible imbalance of livestock-feed supply, WFA may soon be urging hog producers to breed as many sows this summer as last for fall litters—a clear reversal of its position now to reduce 1944 production of hogs.

• **Egg Prospects Down**—Production of eggs this winter has been the largest on record, and production will continue to climb seasonally through April. But the recent record output and lowering prices while feed costs are higher have dropped the egg-feed price ratio to the lowest levels since the beginning of the war.

The unfavorable egg-feed and chicken-feed price ratios already are reflected in fewer orders for baby chicks for poultry and egg production next fall and winter.

• **Wheat Outlook Improved**—Recent snows and rains in the West have improved the outlook for wheat; the outlook for sufficient farm labor to plant and harvest 1944 food crops is reasonably good; more fertilizer will be available than in 1943, and more planting, tillage, and harvesting machinery is promised by increased allocations of steel to machinery makers.

Acreages of winter and spring food crops in the South are bigger this year than last, but progress from South to

Will your Post-War House have Hot and Cold Folding Doors?

THE picture at the right may exaggerate a little but it certainly reflects the gist of present-day predictions about the post-war home. And the confused little man in the corner—isn't a bit more confused than a great many home builders with whom I have talked. They don't know what to believe or expect.

Just what will the post-war home offer that's new? Will the exteriors be as fantastic in design as the sideshow exhibits we saw at the New York World's Fair? Will they have portable walls that vanish at will like a magician's rabbit? Will all the jobs from washing the baby to cutting the grass be done by pushing a few buttons? Indeed not!

NEW BUILDING MATERIALS

But I can positively assure you that the post-war house will offer conveniences, comforts and protection that might have been way beyond your reach only a few years ago. These improvements will be accomplished through the use of new building materials that are already here and waiting for the starting signal for building to resume.

For example, *fireproof* gypsum sheathing which costs no more than old-style inflammable sheathing. And new "floating type" plaster walls and ceilings that reduce room-to-room noise and practically eliminate repair expenses. High-efficiency rock wool insulation that not only insures greater year 'round comfort, but cuts heating costs materially, thereby making home insulation possible for houses even in the low price brackets.

In addition, washable wall finishes; sound-absorbing tiles for rooms where quiet is desirable. These are some of the leading products National Gypsum has ready for post-war construction that can be specified now.

LOWER COST

When you see these finer post-war homes you'll want one for your family more than anything else in the world. And the amazing thing, they will cost even less. In most cases, you can borrow 70% to 80% of the cost with a sound repayment plan that will keep your monthly payments even less than rent. These are not wild promises—they are a certainty.

A MILLION HOMES A YEAR

You know as well as I do what the home situation is today. There's an appalling shortage of dwellings in every price range. With the end of the war and thousands of



Cartoon by Herbert Johnson

additional homes needed for returning soldiers (new couples married during the war) this shortage will become even more acute and the amount of new building required will be tremendous. Leaders estimate that one million homes per year will be needed for each of the first ten years following the war.

HOW TO START

You can get the jump on this market by starting to plan now. Start by seeing your local Gold Bond lumber or building material dealer, architect or contractor. These men know building and the improvements that have been made in recent years. They know the practical from the fantastic. They will work with you on plans for the family space you need. They will tell you about new conveniences, new ideas in building, and help you get ready to start the minute the whistles blow.

M. H. Baker

M. H. BAKER, PRESIDENT,
National Gypsum Company

SEVEN MILLION JOBS! That is one estimate of the jobs the building industry will provide when the war is over. Government and business leaders look to building as a major post-war activity.

Building manufacturers will be ready. In the case of National Gypsum it means switching from the manufacture of metal landing mats for portable air fields to metal lath building products; from plaster used in making self-sealing gasoline tanks for airplanes to plaster for walls and ceilings. These are just a few of our wartime assignments.

Almost overnight National Gypsum's 20 plants can reconvert to the peacetime job of making over 150 Gold Bond building materials. Shipments can begin almost immediately to 10,000 Gold Bond lumber and building material dealers. National Gypsum Company, Executive Offices, Buffalo, New York.

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M-S-A PRODUCTS INCLUDE: BREATHING APPARATUS . . . INHALATORS . . . APPROVED DUST RESPIRATORS . . . MASKS OF ALL TYPES . . . GAS INDICATORS . . . GAS DETECTORS . . . SAFETY GOGGLES . . . PROTECTIVE HATS AND CAPS . . . EDISON ELECTRIC CAP LAMPS . . . SAFETY BELTS . . . SAFETY CLOTHING . . . DUST INSTRUMENTS . . . FIRST AID EQUIPMENT . . . PROTECTIVE HAND CREAMS

North in spring plantings is of course dependent upon the weather. An early spring would do much to allay the fears of administrators over crop prospects.

• **Better Fruits**—Fruits (except citrus) did poorly in 1943, but a repetition of poor yields is hardly to be expected from an habitually "off and on" two-year cycle of fruit production. Fruit specialists are counting on more apples, peaches, pears, and other tree fruits than in 1943.

Less Milk in '44

Cows aren't giving as much and feed price ratios don't favor the farmer, so production may be off 2,000,000,000 lb.

Despite another midwinter feed payment to dairymen, the government milk specialists find it impossible to squeeze out more than an estimated 119,000,000,000 lb. of milk production on and off the farm this year. Production last year totaled 121,000,000,000 lb.

• **Production Down**—Basis for the expected reduction is smaller production per cow because of the reduced protein content of dairy feed, and the milking of fewer cows because of unfavorable milk and butterfat feed price ratios and a shortage of skilled dairy hands.

Already the reduced milk flow has been translated into a smaller allocation of butter for civilians (12.1 lb. per capita in 1944, as compared with 12.5 lb. in 1943). Allocation of cheese for civilians also has been reduced from 5.2 lb. per person in 1943 to 4.2 lb. in 1944.

Allocations of canned milk for civilian consumption will be about the same as under rationing since last July. The per capita supply of evaporated milk is 13.6 lb., of condensed milk, 1.5 lb.

• **New Restrictions**—Action on butter and cheese is to be followed by quota restrictions on deliveries of milk and cream to additional cities having less than 100,000 of population. Quota restrictions on deliveries now apply to 112 areas, including most cities with more than 100,000 population, and 17 of the larger cities under 100,000 population.

Deliveries of fluid milk in these areas are fixed at 100% of the sales in June, 1943, of cream at 75% of the sales for that month, and of milk byproducts such as cottage cheese, chocolate milk, and cultured buttermilk at 75%.

• **Rise Is Slower**—Milk production is rising seasonally but at a lower level than at this time last year. By June it's expected that milk will be flowing at the rate of 121,000,000,000 lb. for the year

In war or peace
B.F. Goodrich
FIRST IN RUBBER



The tire that eats bullets

A typical example of B. F. Goodrich development in rubber

THOSE jagged holes were made by machine gun bullets that went right on through. But the tire didn't go flat!


It's a combat tire, used on army trucks, gun carriers, scout cars, and other vehicles which must travel under fire. While regular B. F. Goodrich truck tires were sturdy enough to take on most army jobs, they always went flat when hit by rifle and machine gun bullets. The army wanted tires that wouldn't.

Rubber engineers working with military technicians developed a new kind

of truck tire—a combat tire which had the ability to keep on running long after it was punctured. Combat tires, as made by B. F. Goodrich, have two lives. Under ordinary conditions the air in the tire carries the load, just as it does in any truck tire. When hit by a bullet, the extra-thick sidewalls take over the job. Even with air gone, the tire itself will support the load and run for 40 miles before going flat.

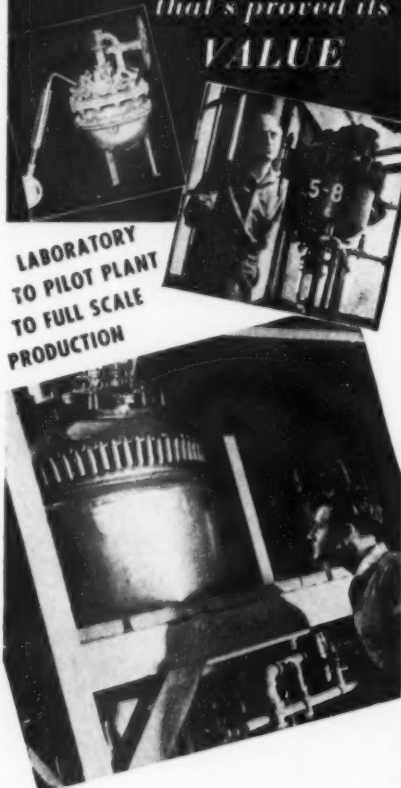
Because of the need for these special combat tires and other tires for military use, tires for civilian trucks and cars are scarce. Practically all tires being

produced by B. F. Goodrich today are made wholly or partially of synthetic rubber. Those for passenger cars, with good care, will nearly equal the service of prewar tires. Truck tires are not yet as well perfected, particularly for inter-city service, but are being improved. And they are keeping America's trucks rolling.

When next you buy truck tires, see the B. F. Goodrich dealer or Silver-town store. 

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Truck & Bus Tires

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THAT IMPORTANT MOMENT in the life of a new product when it leaves the protection of the laboratory and takes its first production steps is a critical one. How will it behave under commercial conditions . . . will laboratory calculations as to time, pressure, temperature, yield, etc. prove correct or will unsuspected "bugs" rise to plague its developers?

That's why so many process industries use Pfaudler Glass-Lined steel pilot or "semi-works" equipment. Extending the chemically inert protection of laboratory glass-ware, these small units permit commercial production on an economical, easily controlled scale. When all problems are solved, transfer to full scale operation is simple.

In fact, many concerns use this equipment for commercial production until demand requires larger units. Others maintain a pilot plant as standard equipment to test each new product.

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stainless steel equipment*

(compared with 126,000,000,000 lb. in June last year). The dairy specialists say, however, that the seasonal decline thereafter may carry well below the 117,000,000,000-lb. rate of last November.

If these expectations become fact, it's certain that besides applying delivery quotas to additional cities, the quotas themselves will be reduced below the June, 1943, base, or a new base established 5% to 10% below the June, 1943, volume. Coupon rationing would be the very last resort.

• **Tentative Allocations**—For the time being, the War Food Administration is calculating allocations and set-asides on the basis of 119,000,000,000 lb. of milk for the full year. Consumption of fluid milk and cream in towns and cities is projected at 41,800,000,000 lb. of milk equivalent (compared with 42,300,000,000 lb. in 1943) and production of manufactured dairy products at 55,200,000,000 lb. milk equivalent (compared with 55,700,000,000 lb. in 1943).

These figures combined account for about half the estimated decrease of 2,000,000,000 lb. in the total milk production. Milk and cream consumed on dairy farms also are expected to drop 1,000,000,000 lb. The quantity consumed on dairy farms, fed to calves, and made into farm butter last year totaled 22,000,000,000 lb.

• **Civilians' Share**—It is estimated that civilians will get 96,200,000,000 lb. of milk equivalent as fluid milk, cream, butter, cheese, and other manufactured products in 1944, as compared with 100,300,000,000 lb. in 1943. This reduction allows for a cut of 2,000,000,000 lb. in total milk production, and an increase of 2,000,000,000 lb. in allocations for the military and lend-lease.

FLOUR MILLS REOPENING

Small flour mill operators who have not participated in government flour contracts are responding to the appeal of the War Food Administration to help boost 1944 production by 15,000,000 bbl. to 18,000,000 bbl.

A number of mills in Kansas, Minnesota, Oklahoma, and Texas, which had been out of operation, have been placed back in service in recent weeks.

Although 125,000,000 bbl. of flour, including granular, were milled in 1943, millers are doubtful that they can meet the government's request for 145,000,000 bbl. in 1944. Mills are now operating 74% of capacity, and are beset with manpower, machinery replacement, and bag shortage problems. At the request of WFA, the War Manpower Commission has directed its offices to give the mills every labor consideration.

Other current flour problems are (1)

supplying Cuba with 1,600,000 cwt. under a special export subsidy plan, and (2) working out an export subsidy in addition to the temporary general subsidy now being paid to all American millers by the Defense Supplies Corp. (BW-Jan. 15 '44, p. 37).

Cuba, under the program, would receive flour and lard from the United States at the same price as paid in 1943 in exchange for Cuban sugar and blackstrap molasses, also on the same basis as in 1943.

Too Much Linseed

Russians refuse to take more of this oil for edible use. This means greater demands on U. S. butter supplies.

Fats and oils are giving the War Food Administration plenty of trouble. There's so much linseed oil on hand that the experts don't know how to manage it; and there's so little butter that the per capita ration for civilians has been cut nearly half a pound—from 12.5 lb. in 1943 to 12.1 lb. this year.

• **They Want Butter**—The connection between linseed and butter is that the Russians refuse now to take larger lend-lease quantities of the oil for edible use. They want butter instead. They'll get this year about 5%, or 100,000,000 lb., of the total U. S. supply of butter. The British won't take linseed for edible use on any account.

The government fats and oils specialists have been trying to get the soap makers to use high-cost linseed instead of lard, but have had to settle for castor oil instead. Shipments of castor from Brazil had been stopped so that the boats could be used for other cargo, but castor has been opened up again.

• **Lard Troubles**—As though this were not enough to upset the plans of the specialists, both the WFA and the Office of Price Administration are continually drubbed by the Bureau of Foreign & Domestic Commerce for failure to compel the pork packers to cut more fat for lard from hog carcasses. The bureau reports that more than 500,000,000 lb. of fat were lost on this account last year.

Meanwhile, the paint makers look wistfully at the big reservoirs of linseed (with supplemental supplies available in Canada and Argentina), but get nowhere in their efforts to induce the War Production Board to relax Order M-332 which limits the use of drying oils in specific products.

• **Largest on Record**—The bureau estimates 1944 supplies of linseed oil at 1,420,000,000 lb. (largest on record), re-

quirements under present allocations at 1,084,000,000 lb., and stocks at the end of the year at 336,000,000 lb. These stocks would be 34% larger than in 1943.

Trouble for the WFA Fats & Oils Branch is also brewing over allocations providing only 3.6 lb. of margarine for each civilian this year, as compared with 3.3 lb. in 1943. Margarine makers had hoped for at least 4 lb. per person.

● **Cut in Shortening**—Biggest reduction in allocations of fats and oils for civilian consumption in 1944 is in shortening and other oils—from 16.4 lb. per person in 1943 to 14.3 lb. in 1944. Lard is reduced from 14.3 lb. to 13.9 lb., although production is the largest on record.

Prewar (1935-39) civilian consumption of fats and oils averages 16.8 lb. of butter, 11 lb. of lard, 18.2 lb. of shortening and other oils, and 2.3 lb. of margarine—total 48.3 lb., as compared to 43.9 lb. in 1944.

● **Stamp Plan Works**—The amount of fats being turned in for war purposes has more than doubled since OPA recently started giving housewives two meats-fats ration points for each pound of waste kitchen fats. The nation's housewives are currently saving waste fats at the rate of about 200,000,000 lb. a year.

To facilitate the program, OPA has announced a scale of container weights to be used by butchers in computing the net weight of fats turned in by housewives.

Fur Farms Fold

Manpower shortages and skyrocketing feed prices have driven 30% of the ranchers to the wall. Mink, fox ceilings set.

The war is taking a heavy toll of the fur ranches in the United States. Taking stock now, at the end of the pelting season, ranchers find that about 30% of the farms devoted to the raising of fur-bearing animals have liquidated, and many owners have reconverted from fur to food production to aid the war effort—and themselves. Hogs, poultry, and dairy products lead in the change-over.

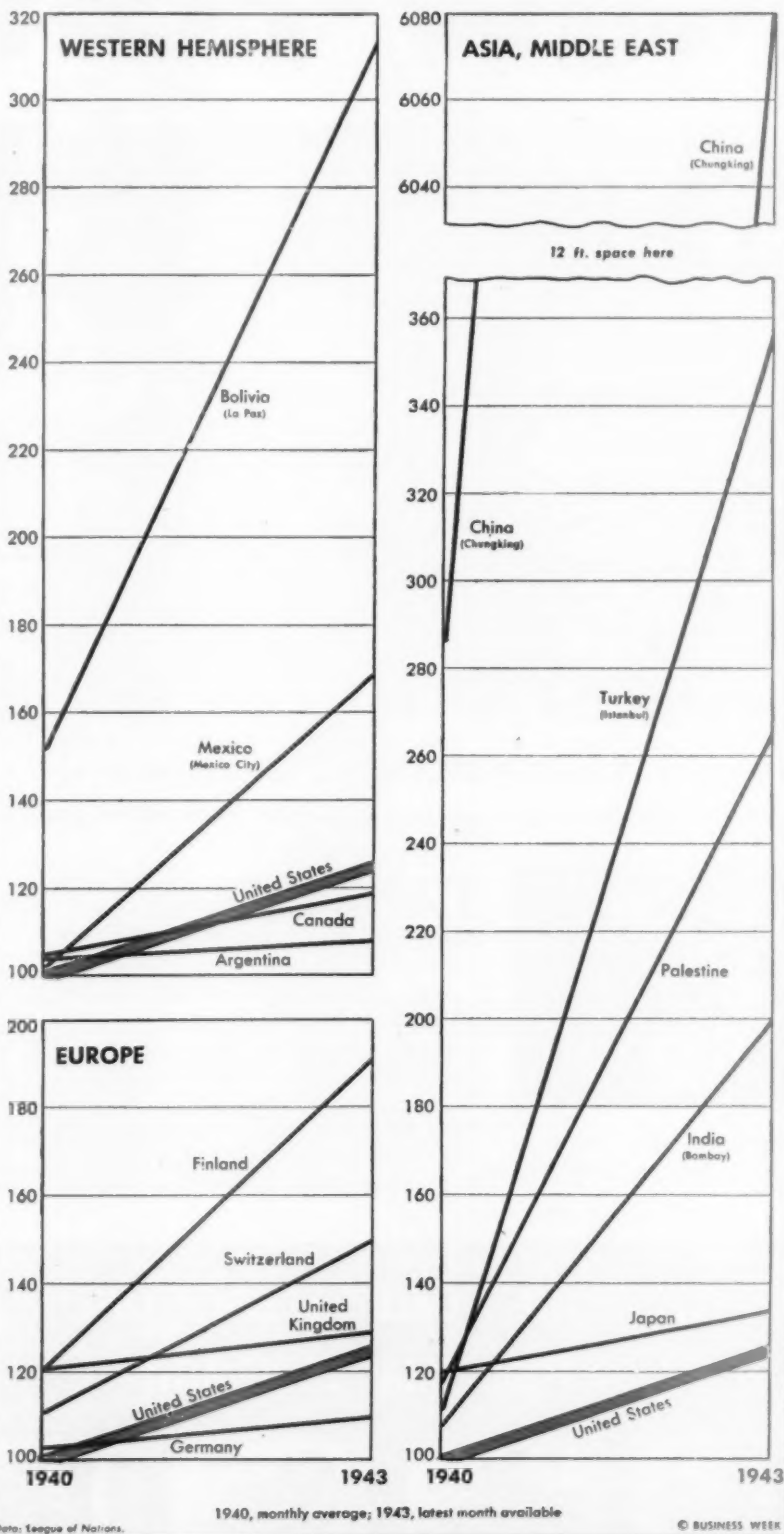
● **Costs Up 50%**—Costs of raising fur animals have increased about 50%. The shortage of labor offers the most serious problem. Ranchers now depend mainly on the manpower of their own families, schoolboys and girls, and men beyond the age of more active work.

Feed materials are still adequate, although the prices range from two to five times higher than a year ago. There is

PRICE INFLATION ROUND THE WORLD

How control of living costs in the U. S. compares with record of 13 other representative nations

Jan.-Jun. 1939=100



ENGINEERING THAT AIDS ALL INDUSTRY—FUR A

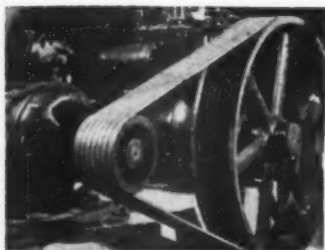
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CHOKE
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**How A-C TEXROPE V-BELT DRIVES are speeding production of U. S. planes, tanks, guns—
will help put better, cheaper clothing in your wardrobe after the war!**



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IN THE SOUTH PACIFIC, a U. S. bomber
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textile mill spins miles of cloth for para-
chutes, uniforms, bedding.

*And a "new-fangled noose," invented by
Allis-Chalmers helps do both jobs!*

To-day multiple V-Belts, invented by A-C,
drive 75% of the machines that turn out
U. S. armament, munitions . . . help textile
mills make many small units do the work of
huge single motors—save power.

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*mean more efficient postwar production, not
only of textiles—but of every product an eager-
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equipment—from low-cost tractors to revo-
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TO HELP
MAKE
NIFTIER
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VICTORY NEWS

Solves Wartime Maintenance Problems: Dressed up with eye-catching color cartoons, the new 24-page "Allis-Chalmers Operation and Maintenance Review" aims to help maintenance men solve wartime problems. Also briefs for busy readers the new trends in equipment use and plant operation.

Executives, production and maintenance men may obtain this magazine by writing to Allis-Chalmers, Milwaukee 1, Wisconsin.

Self-Priming Centrifugal Pumps: An improved, automatically controlled valve is the distinctive feature of the new Allis-Chalmers Type AO self-priming pump designed for marine and industrial use.



A-C plans a complete line from 1 to 6-inch size (2 and 3-inch sizes already available) with pump capacities ranging from very small to 1400 gpm. The self-priming device is also adaptable to use with other pumps, particularly the single-suction type.

TUNE IN THE BOSTON SYMPHONY—

Allis-Chalmers' new coast-to-coast radio program dedicated to the men and women of American Industry!

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For complete service to the aviation communications, electrical and electronics industries, Cook Electric Company also manufactures accessories, such as jacks, plugs, lamp jack strips, terminal strips, binding posts, solenoids, solenoid contactors, turn keys, lever keys, push keys, etc.

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COOK ELECTRIC Company

2700 SOUTHPORT AVE.
CHICAGO 14, ILLINOIS

EXHIBITS CALLED OFF

More than half of the national and regional exhibitions normally held during the first four months of the year have been canceled—most of them for the duration.

According to the "Annual Schedule of Shows and Exhibits for 1944," just released by the Exhibitors Advisory Council, Inc., 120 Greenwich St., New York City 6, the four-month count is as follows:

Shows normally scheduled.....	225
Shows canceled	135

Shows to run.....	90
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Wartime show casualties include such outstanding affairs as the National Business Show, the National Flower & Garden Show, and the International Heating & Ventilating Exposition.

Shows that will go on include the Merchant Tailors' Show, Chicago, Feb. 14-15; the Packaging Exposition, Chicago, Mar. 28-31; American Foundrymen's Show, Buffalo, Apr. 25-28.

virtually no whole round fish available, and fish trimmings are selling for even more than the whole fish did a year ago. Smelt, caught by the tons when they migrated from Lake Michigan to the river spawning beds each spring, provided a cheap food for mink the last several years, but this prolific fish mysteriously vanished early last year (BW—Mar. 20 '43, p. 42). Herring also has been a good feed item on fur farms, but this year's catch is going for human consumption.

• **Ceilings on Pelts**—OPA regulations at first were a disturbing influence in the industry, but these early difficulties are gradually being ironed out. The OPA recently released ceiling prices for ranch furs for the coming season, setting a maximum of \$125 a pelt for silver foxes and \$32 a pelt for the highest grade mink.

It is estimated there are 4,000 silver fox farms and 3,000 mink farms in the United States. Wartime obstacles forced 35% of all mink ranchers and 25% of the silver fox breeders to quit last winter, and there have been other casualties since then.

• **Fewer Trappers**—Curtailed production on the farms, in the face of an increasing demand for fine furs by a prosperous nation, already has boosted the prices offered trappers. But there are fewer trappers on the traplines this season, and despite fancy prices, it is believed the catch will be from 20% to 30% less.

Gasoline and rubber shortages are a

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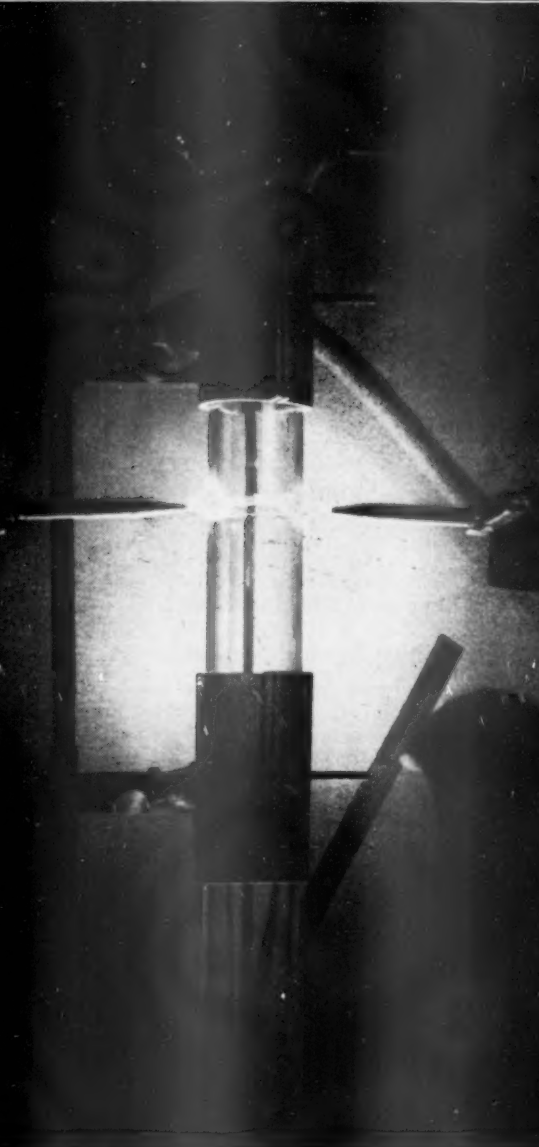
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Sewing glass with a thread of fire...



FOR a long time industry has wanted a method by which two or a thousand pieces of glass pipe could be joined into a continuous piece. Now Corning has worked out a high-frequency electrical welding process that literally sews glass with fire.

It has these advantages: 1) It's faster than old methods. 2) It makes a smooth, transparent joint, just as strong as the pipe itself. 3) With new portable welding equipment it may soon be possible to go into a food or chemical plant and install continuous glass piping right on the job.

Welded glass pipe isn't available now except to certain war plants. But it's another

interesting development that points to a greater use of glass when some of the present restrictions on production are behind us. Others are a new type of glass so resistant to thermal shock that it can be heated cherry red and then sprayed with ice water without breaking; "ribbon glass" in sheets almost as thin as cellophane; and a new method by which accurate shapes of almost any size or description never before possible in glass can be quickly formed.

Glass is going to play a major role in post-war. And Corning will be there with what it has learned during the war plus a background of nearly a century

of glassmaking experience. Meanwhile if you have thought of applying glass to your war or future problems, perhaps we can help you. Write Dept. 42-B, Corning Glass Works, Corning, N. Y.

CORNING
—means—
Research in Glass





Gauges by Ashcroft

THESE Landing Ships for Tanks with huge doors in the bow, transport tanks, big guns and ambulances, run up on the beach and drop the ramp. Then the mechanized units disembark under their own power.

The number of these in existence and being built is a military secret. But it is in the many thousands.

Ashcroft Gauges are used in these landing craft as well as in fighting ships, cargo vessels and submarines. Always there are pressure lines—steam, water, air—where these accurate indicating instruments reveal their vital information to the engineers and maintenance men.

We have never made more gauges in our ninety-year history. More important, we have never made better gauges. And in the tomorrow of peace, you may still specify "Ashcroft" knowing that the name means "everything of quality in a gauge."

Stocked and sold by leading Distributors everywhere... When you order gauges, insist on ASHCROFT... Write for booklet.



ASHCROFT
Gauges

MANNING, MAXWELL & MOORE, INC.
BRIDGEPORT, CONNECTICUT

Makers of Ashcroft Gauges, Hancock Valves, Consolidated Safety and Relief Valves, and "American" Industrial Instruments. Builders of "Show-Box" Cranes, "Budgit" and "Load Lifter" Hoists and other lifting specialties.

factor in reduced trapping, and only a small amount of steel has been made available by WPB for manufacturing traps. Stocks of traps on hand are now scanty.

• **Canadians Active**—Trapping apparently goes on as usual in Canada, however. The Game & Fisheries Dept. at Toronto, for instance, reports there has been no noticeable decline in the number of trappers' licenses issued in Ontario.

Broom Shortage

Prices continue to rise as fiber scarcity grows. Last year broom corn production was well under the average yield.

Housewives will have to look far for brooms this year. Even if the broom manufacturers could get enough labor, there are not enough good-quality fibers to go around. Evidence of the broom scarcity is the retail price, which has gone up 20% to \$1 or \$1.50 in many localities.

• **Crop Slumps**—Broom corn, of which U. S. farmers usually raise 50,000 tons annually, was only a 30,000-ton crop last fall. Essential imported fibers (rat-

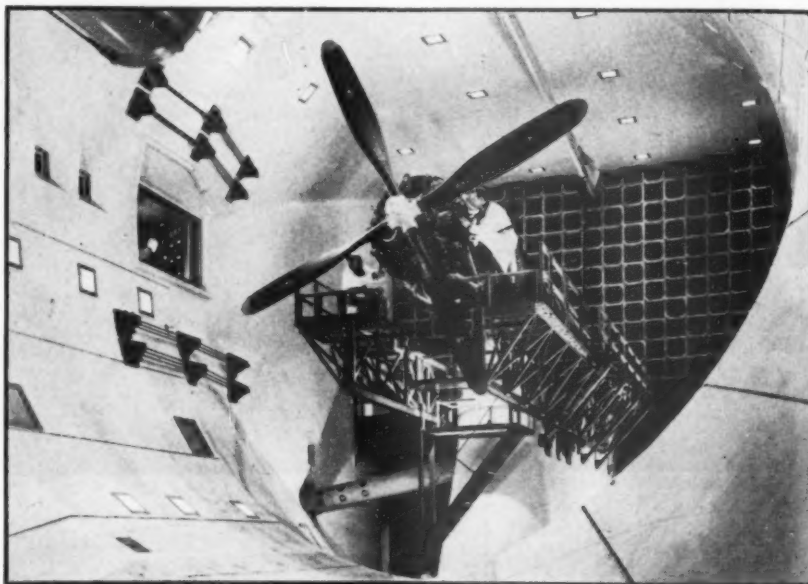
tan, split rattan, palm fiber, bass, and bassine) are not plentiful enough to serve as supplements for broom corn. Although wire and twine, once on priority, are now fairly easy to get, manufacturers still lack maple for handles, and WPB announced last week that no increase in output can be expected.

The National Assn. of Broom Manufacturers estimates that 60,000,000 brooms will be needed in 1944. Contrary to the common concept of the broom as primarily a household tool, far more than half of this year's output will be of industrial types for use in war plants, and 20% or so of the total will be bought by the government for sweeping barracks and office floors.

• **Can't Deliver**—The industry can promise only 40,000,000 of the needed 60,000,000, unless the usual supplementary fibers can be imported in larger quantities than ever before, or unless the public will use ersatz brooms made from domestic grasses.

The reason for last year's small crop of broom corn was the small 1943 planting. Farmers feared a repetition of their unhappy experience of 1942, when the anthracnose disease wiped out the entire crop in Illinois, a major producing state.

Farmers in Kansas, Colorado, Oklahoma, and New Mexico went light on broom corn because its harvest requires



FUTURISTIC LAB

At Caldwell, N. J., in the world's newest and largest privately owned test cell for engines, Curtiss-Wright engineers are putting their latest propeller through its paces. The prop is a hollow-steel electrically pitched job meas-

uring 17 ft. across, and is whirled by a new 2,200-hp. Cyclone engine, while its efficiency is checked in a glass-paneled control room. With an eye to the future, Curtiss-Wright designed these facilities to handle 30-ft. propellers and 5,000-hp. engines—when and if they're ever developed.

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Giving Strength to a "Bull"... Taking Time from a Clock

That bulldozer . . . butting dirt and rocks with an impact that shakes the teeth of the driver . . . needs plenty of guts in the bolts and nuts that fasten its joints.

That clock . . . racing a production schedule, with costs counting the minutes it takes to assemble it . . . needs bolts and nuts so easy-fastening they nearly fly into each other's arms.

For strength that survives the worst licking a tractor or train or trestle can dish out . . . for accurate mating that saves precious assembly time: assemble with RB&W bolts and nuts.

For 99 years . . . RB&W has pioneered in the development

of better and stronger fasteners.

From 1850, when it designed and built the world's first cold header, until 1944, when its great batteries of modern equipment still represent the latest achievement in bolt and nut making history . . . there has been no slackening in effort to improve its product.

During the past generation, hundreds of thousands of dollars have been spent by RB&W in experimental and research work on nuts alone.

This is only one reason why so many great names in industry have come to depend upon RB&W for fasteners that make their products stronger, faster, better.



RB&W *Making strong the things that make America strong*



RUSSELL, BURDSALL & WARD BOLT AND NUT COMPANY

Factories at: Port Chester, N. Y., Coraopolis, Pa., Rock Falls, Ill. Sales offices at: Philadelphia, Detroit, Chicago, Chattanooga, Los Angeles, Portland, Seattle



PRE-forged

to improve your product

Pre-Forged to improve your product . . . Pre-Forged to reduce rejects in your plant . . . Pre-Forged to make your job easier and to help you make a better profit. Follansbee's unique Pre-Forging process presents these and numerous other definite advantages.

Follansbee steel is made in small basic open hearth furnaces—poured into small ingot molds—then *forged* into billets by a 1,000 ton press. The pressure exerts a direct kneading action to the very center of the ingot, resulting in a denser, more homogeneous structure than any other process can impart to steel. The uniform cross-sectional structure of Follansbee steels provides high transverse and longitudinal values . . . more uniform response to heat treatment . . . greater resistance to fatigue—hence longer life in your finished product.

Follansbee's exclusive Pre-Forging process assures high quality, sound steels.

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GENERAL OFFICES • PITTSBURGH 30, PA.



Sales Offices—New York, Rochester, Cleveland, Detroit, Milwaukee.
Sales Agents—Chicago, St. Louis, Nashville, Los Angeles; Toronto and Montreal, Canada. *Plants*—Toronto, Ohio and Follansbee, W. Va.

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POLISHED BLUE SHEETS • ELECTRICAL SHEETS & STRIP • SEAMLESS TERNE ROLL ROOFING

all-manual labor, and they feared manpower shortage.

• **Prices Skyrocket**—The broom corn market is notoriously volatile, because the material has only one major use, and its sole outlet is through a small number of broom brokers. The 1942 crop brought an average seasonal price of \$174 a ton, as compared with \$119 in 1941, and \$63 in 1940. In February, 1943, OPA temporarily froze broom corn prices at current levels, then removed the ceiling after 60 days, and left farmers guessing.

After the 1943 August-September harvest, dealers scrambled for the small supply until in October OPA put a ceiling of \$250 a ton on field-cured broom corn and \$300 on shed-cured. Last Saturday, OPA announced that, after full re-examination of the price and production problems of the industry, it had determined to maintain these ceilings for the 1944 crop. (In the World War, the market reached \$500 a ton.) With the current scarcity, however, broom corn is practically unobtainable at ceiling prices, and sales at \$400 are common talk in the trade.

• **Many Substitutes**—Most common substitutes for broom corn are: tough New Mexican soapweed; more fragile swamp grass; Mexican rice root, which has fine crinkly prongs like good broom corn; and domestic grasses, the least effectual material. Broom makers say their best bet is rice root.

Carp in a Can

This fish (just a pest to like Waltons) will be tinned for market; oil seen as rich source of vitamin A.

The lowly carp (*Cyprinus carpio* to the ichthyologist), long regarded as a plain pest by the sportsman and a bony abomination by the gourmet, now is said by University of California scientists to have some special values. Quickly seeking to capitalize on the scientific discoveries is California Lake Fish Products, Ltd., which began seining operations early in December.

• **Virtues Propounded**—The U. of C. report is to the effect that the carp contains an oil four times as rich in vitamin A content as that of the sardine although not quite as much of it. It is further said that unused portions supply a rich poultry food after passing through the reduction plant. Perhaps most important of all, from the public point of view, the fish is classed as altogether palatable when canned.

Even fresh fillets of carp were re-

received enthusiastically at dinner tables last year, according to the Coordinator of Fisheries, as were the unfamiliar shark steak, smoked buffalofish, mussel chowder, and squid. In Chicago, carp outsold all fin fish except halibut and salmon during a two-week period in December.

● **Vitamins in Shark**—Vice-president and general manager of California Lake Fish Products is T. J. Guaragnella, who was the recipient of a good bit of national publicity several years ago as one of several pioneers in the marketing of shark livers for their vitamin virtues. Incidentally, shark steaks gradually have become a marketable commodity since use of the livers was established.

● **Makes Self at Home**—Originally introduced to Europe from Asia, the carp was first distributed in this country by the government. As adaptable as it is prolific, the fish has taken over streams and lakes everywhere, driving out many game fish to the disgust of anglers.

The California State Fish & Game Commission attempted several years ago to reduce or eliminate carp from Clear Lake, a body of water 28 miles long and 9 miles wide. Black bass, calico bass, Sacramento perch, and forked-tail catfish were planted, but they seem to be fighting a losing battle. Similarly, granting of seining privileges to Chinese fishermen (inspectors make sure they throw back all but carp and a certain type of sucker) seems to be making no appreciable difference in the undesired abundance.

● **No Fear of Shortage**—Initial seining by California Lake Fish Products was in Clear Lake, where the average day's catch is expected to total 20 tons. Lake Almanor is another likely scene of operations, while hundreds of smaller lakes and the sloughs along the Sacramento and San Joaquin rivers abound in carp.

MORE HONEY WANTED

Honey producers are out to increase honey production by 10% this year (a 5% increase was realized last year). Honey is much in demand as a household product and by bakers, confectioners, and manufacturers of ice cream, cosmetics, and medicines who have used all the honey they can purchase (BW—Jun. 19'43, p72).

In 1943, some 4,901,000 colonies of bees produced slightly over 189,000,000 lb. of honey, worth \$24,000,000. Ceiling prices are 12¢ a pound as against an 8½¢ average in 1942.

Beekeepers also supplied 3,750,000 lb. of beeswax in 1943, principally to manufacturers who supply Army and Navy with weatherproofed clothing and equipment. The manufacturers of carbon paper and candles take any surpluses.



Edison Electronic Voicewriter* offers Revolutionary Possibilities in Time Saving and Efficiency.

Here is one postwar dream already come true—the Edison Electronic VOICEWRITER, now becoming available for business use!

This electronic "secretary in a microphone" does more than take your dictation, speed your ideas into action, save precious executive and secretarial hours. It also records speeches, interviews, conferences, telephone conversations—to prevent mistakes and misunderstandings.

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business now, we need only say that the Edison Electronic VOICEWRITER is Ediphone carried to its ultimate development.

If the whole idea of Voice Writing, with its time saving and better *time management*, is still untried with you, then you will get an entirely new conception of business practice with your first use of the Edison Electronic VOICEWRITER.

Let an Ediphone representative tell you more about this practical application of electronics to every day business. Invite him in now—by mailing the handy coupon below.

*Based on the "Edison effect" discovered by Thomas A. Edison in 1883 and perfected by wartime research.

EDISON VOICEWRITER Ediphone

THOMAS A. EDISON, INC., Dept. C2, W. Orange, N. J.

I would like to know more about the new Edison Electronic VOICEWRITER and how it can save time and streamline business operation.

"Out of the mind—
into the mike"



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Company.....

PRODUCTION

Zinc for Tin

Coated sheets produced successfully on an electrolytic line designed for tin. Range of postwar uses explored.

The production of zinc-coated sheets on one of the same electrolytic plating lines that helped revolutionize tinplate output during the last few years has opened a wide range of postwar possibilities in applying coatings of metals to steel strip that cannot, like tin or zinc, be applied by the conventional hot-dip process.

• **Continuous Strip**—Weirton Steel Co., Weirton, W. Va., is turning out thin zinc-coated sheets at the rate of 160 ft. a minute on an electrolytic line that was originally built for tinplate.

Redesigned to coat continuous strips up to 38 in. in width with from 0.1 oz. to 0.2 oz. of zinc per sq.ft. on both sides, the electrolytic line consists of a three-deck section of 24 trough-like cells. These cells are filled with a zinc electrolyte which is made from the chlorides of zinc, sodium, and aluminum, together

with 16 pure zinc anodes in each cell.

• **For Auto Gaskets**—Electrolytic zinc sheets cut from the strip are processed into ends for fiber shell canisters and ammunition containers; some will be used to make automobile head gaskets and spark plug gaskets.

The research to determine the ability of the converted electro-tinning lines to "throw" other metals undoubtedly was prompted because of the possibility that the steel industry had built excessive electrolytic tinning lines. The success with zinc coating hopefully suggests that other metals can be applied similarly to steel to make use of all electrolytic facilities.

In 1937, the first electro-tinning lines were installed whereby low voltage motor-generators or rectifiers supply direct current for depositing the tin on steel from cast-tin anodes. This method used only about a third of the tin normally utilized by the hot-dip process by which steel sheets were dipped into molten tin (BW—Nov.7'42,p74).

• **Big Investment**—When Japan seized most of the tin resources, this nation faced the problem of spreading its tin reserves as far as possible, and the electroplating process was boomed over the hot-dip procedure as a tin saver (BW—

Aug.28'43,p80). Within the past few years, a dozen steel companies have invested from \$50,000,000 to \$60,000,000 in installing 28 electro-tinning lines.

• **Not a Cure-All**—But can companies did not consider the electrolytic product a cure-all, and felt that the heavier coated hot-dip tinplate was better for many packed foods. Consequently, the electrolytic units, so far as capacities were concerned, did not fare as well as the hot-dip lines. Of the 2,104,718 tons of tinplate produced last year, it is estimated that from 15% to 20% came off the electrolytic lines.

Electrolytic production is expected to rise sharply this year, and, spurred by liberalizing of government regulations concerning the use of tinplate, output of the thinly coated product may be as great as of the hot-dipped.

Zein on March

An all-American product comes to rescue as replacement for imported shellac and other essential industrial uses.

Few materials have undergone a more intensive workout in industrial research and development laboratories than that being given to the natural corn plastic with the unusual name of zein which was brought out in pilot-plant quantities by the Corn Products Refining Co. a couple of years before Pearl Harbor.

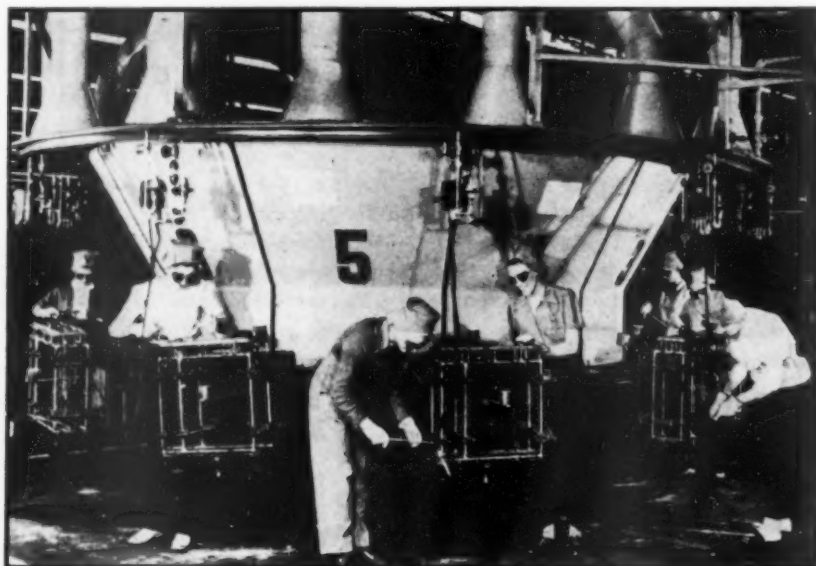
• **Dormant for Years**—Up to the end of 1941, it had received little attention outside the paper and packaging fields where it was beginning to achieve a place for itself as an ingredient in compounds for the protective and decorative coating of paper.

Since then it has gone to town as a replacement for imported shellac in surface finishes, as a basic ingredient in grease-proof, heat-sealing paper coatings for military packages, and as a core wash for magnesium foundry castings.

So insatiable was the demand for the versatile material that WPB put it under allocation last May (General Preference Order M-320) and Corn Products, the only supplier, stepped up production to an undisclosed rate which is more than double its preallocation capacity.

• **Soluble in Alcohol**—Although zein is new commercially, its history goes back over a century to 1821 when a chemist by the name of Gorham isolated the substance in corn and named it after the Zea grass genus, the sole species of which is corn.

He was pretty excited about his dis-



PRODUCTION CIRCLE

Circular assembly lines that resemble a merry-go-round are speeding production of armaments ranging from gas masks to radio sets. At Schenectady, N. Y., General Electric uses a custom-

built type for turning out military transmitters and receivers. Each unit is attached to a huge revolving wheel which moves the work through ten job stations at convenient height for brazing operations (above). Overhead stacks draw off the fumes.

Why \$1.57?



Harden it for 10¢ with TOCCO

PROGRESSIVE Kearney & Trecker Corp., Milwaukee, Wisc., reports the following savings by TOCCO hardening the above saddle clamp eccentric of their Milwaukee Milling Machine:

	FORMER METHOD	TOCCO
Heat treating.....	\$ 0.721.....	\$ 0.099
Straightening.....	0.752.....	0.000
Cleaning.....	0.100.....	0.000
Total Cost.....	\$ 1.573.....	\$ 0.099

Saving . . . \$1.47 per piece

In addition to this saving of \$1.47 per piece, TOCCO made possible a switch from alloy steel to S.A.E. 1045 steel, saving \$0.110 in material

cost per piece.

Total saving on each run of 1375 pieces for this one part is \$2,172.50.

Kearney & Trecker hardens a total of 138 different parts on one "TOCCO JR." machine. Output of some parts has been increased as much as 500%.

Output of the saddle clamp eccentric was boosted 144%—from 41 to 100 pieces per hour!

Why not enlist TOCCO's experienced Engineers to help you obtain similar improvements for *your* production? New booklet, "Results with TOCCO", free on request.

THE OHIO CRANKSHAFT COMPANY • Cleveland 1, Ohio

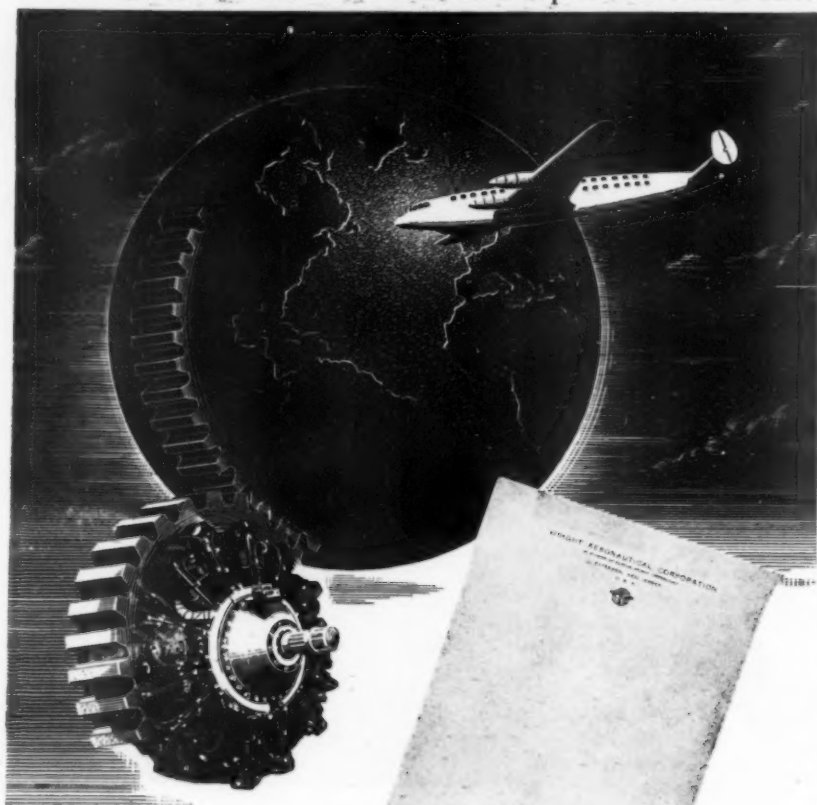


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Strathmore Paper Company, West Springfield, Massachusetts

covery at the time because it was, and still is, the only commercially available protein soluble in alcohol, but it remained a laboratory curiosity for 7 years—principally because no one knew how to extract it in quantity.

In 1891, Prof. Thomas B. Osborne of Yale withdrew it momentarily from obscurity by discovering it to be a natural plastic with "many of the physical properties of pyroxiline," by formulating a "new and useful composition of matter to be used as a varnish, lacquer or glue" with zein as its principal ingredient, and securing U. S. Patent No. 456,772 thereon; but he failed to achieve a process for commercial zein extraction and his patent lapsed, practically forgotten.

During the depression, when the researchers at Corn-Products' Argo (Ill.) laboratory were hunting for additional products that could be extracted from corn along with starch, oil, dextrose, and all the rest, they decided to go after practical extraction methods for zein—and succeeded as others might have done during the last century if rubber and shellac and other imported gums had not flooded into the country, caught the popular fancy for exotic things, and caused a native product to be shoved into the discard.

• **Pound to the Bushel**—Zein, which is as American as tobacco, ham and eggs, and the corn from which it comes, has been present but unseen and unappreciated in every bushel of corn grown since the beginning of time. (When freed of its 15%-20% water content, a typical kernel of corn is composed of zein 7%, other proteins 3%, oil 41%, starch 80%, fiber 3½%, ash 2%.)

More than 250,000,000 lb. of zein are theoretically available from just the 100,000,000 bu. of corn that are ground and processed annually in this country for starch, sugar, and other products; but in the present state of the recovery art, 1 lb. of zein is considered the practical limit of recovery for every 56-lb. bushel of ground corn.

Physical characteristics of zein intrigue almost every laboratory man who has worked with it; while it is essentially a thermoplastic, its temperature of decomposition (approximately 375F) is so close to its softening point that for practical purposes, such as in the formulation of thermoplastic compositions, it is necessary to use with it a solvent type plasticizer or a solid solvent, such as gum or wood rosin, which reduces the softening point of the mixture.

• **Blends Readily**—Although it is compatible with fatty acids of the amine and amide types and blends readily with synthetic plastics of the phenolic, melamine, and glyptal types, it is so completely insoluble in the hydro-

Ever see a decayed piece of Glass?

Never. Unlike other materials, glass just doesn't decay.

Nor rot. Nor rust.

Doesn't this suggest many uses for glass where other materials you may be using have failed to stand up?

Used rightly, glass is a durable structural material. Both chemically and dimensionally it is far more stable than most materials. It has remarkable resistance to abrasion. Its surface is among the hardest in the world. Glass is strong—a square foot of our quarter-inch tempered glass will withstand a pressure of 60 pounds per square inch. And it will withstand a thermal shock of 400 degrees Fahrenheit.

But the striking thing about glass is that it gives you all these structural properties *plus* the unique characteristic of permanent transparency.

Where can you use glass? Let your imagination run wild. Then talk it over with us. Let us match our knowledge of glass with your knowledge of your own problems. We may come up with just the answer you are looking for. We've done it for others. Why not let us try it for you? Libbey-Owens-Ford Glass Company, 5524 Nicholas Bldg., Toledo 3, Ohio.

Destructible? Wood-Metal-Plastics-Glass. No material is indestructible. However, barring unseen conditions, no material will fail on a job in which it has been properly specified and engineered. When our application engineers say "Yes", you can be sure about glass.



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A GREAT NAME IN *Glass*



**They're neither
TOO HOT nor
TOO COLD**

That's right, even temperatures automatically maintained by thermostatic control—with Modine Unit Heaters. And every unit individually controllable.

Over-heating is just as uncomfortable as under-heating—and an ever greater menace to health. Variation between the two extremes increases workers' susceptibility to colds.

And colds, only too often, lead to more serious illnesses and longer layoffs. There's a noticeable lowering of worker morale as well as output.

That's exactly what Modines prevent. Their even heating-comfort means less absenteeism, less employee turnover.

And Modines save as well as serve. Save space...they take up no floor or wall space. Save fuel...they go on and off like a light...no heat is wasted.

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AND AFTER THE WAR
for
Stores, Markets,
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Look in your phone book for Modine representative's name — "Where to Buy It" section.



HORIZONTAL
DELIVERY MODEL

modine
UNIT HEATERS

carbons that it can be boiled in oil, turpentine, benzene, and similar solvents without undergoing a change.

Zein's solubility in alcohol so caught the fancy of the laboratory staff of the Filtered Rosin Products Co. of Brunswick, Ga., that they tried blending it with rosin in various proportions, finally hitting upon a combination, named Chemlac, that has taken much of the sting out of the imported shellac shortage. When cut with alcohol, as is being done by many paint manufacturers, and applied by brush or spray, it apparently has every good property of the East Indian material plus an ability to adhere to glass and metal, and an abrasion resistance all its own.

Best of all, from a nationalistic economic standpoint, Chemlac sells in quantity for 19¢ a lb., as compared with 39¢ a lb. for shellac (zein, which comes as a dry, light amber powder in 50-lb. paper bags, sells in lots of 1,000 lb. or more for 25¢ a lb.; refined rosin sells for about 6¢).

• **Rubber Substitute**—Zein's potentialities as a replacement for rubber constitute a story that cannot yet be told, although it is public knowledge that a heavy solution of the protein and any one of several plasticizers can be blended with fillers and curing agents, and put through standard rubber-making machinery to make a rubberlike material with a tensile strength of 1,200 psi. and elongation of 250% (by sacrificing elongation, tensiles up to 2,000 psi. or higher can be reached).

Such figures (compared with the 4,200-psi. tensile and 500% elongation of high-grade natural rubber tread stock) hardly permit serious consideration of the compound as a tire material, but it lends itself to being molded and "vulcanized" (with one of the aldehydes taking the place of sulphur as a curing agent) into a wide variety of oil-resistant, abrasion-resistant "rubber goods."

Now in process or under test are long-wearing zein shoe soles and heels that will not slip on surfaces wet with water, zein shoe cements to replace ones based on natural latex, raincoat coatings in a wide range of colors (zein takes pigmentation beautifully), stair treads and floor mats, sink mats and stoppers, gaskets for jar closures, printing type for rubber stamps.

Such applications, however, will have to wait until all military needs are satisfied; when they finally emerge for civilian use, there may be ready along with them zein packaging films, textile fibers (practically anything that can be made into a film can be extruded into fibers), and hard zein plastic bottle and jar closures molded out of a blend composed of paper pulp, the plastic protein, and other ingredients.

Paper Progress

New uniform standard of measure would cut errors, save countless man-hours. Reduction in pulp content also is asked.

A uniform, simplified standard of measure for all types of paper, sponsored by the Joint Committee on Government Relations of the Commercial Printing Industry (representing over \$600,000,000 of the industry's \$947,000,000 annual output) is receiving serious consideration by the War Production Board.

• **Two-Point Program**—Backers of the plan also are proposing a 5% reduction in pulp content in the nation's annual paper tonnage, to be inaugurated at the same time the new standards of measure are adopted.

Today the printer and the paper dealer are confronted with a traditional hodgepodge of basic sizes with which the basic weights, or substances, and prices of different kinds of paper are computed.

The printer, in estimating jobs, must remember that the basic size for book paper is 25x38 in., but that for newsprint it's 24x36 in., for index stock 25½x30½, for cover stock 20x26, and for bond paper 17x22. Also he has to keep in mind the three basic sheet counts (500, 480, and 1,000).

• **No Change in Orders**—Instead of using these varying factors, the proposed uniform standard of measure calls for 1,000 sheets of 25x40 in. in size—expressed for convenience as 25x40/1000.

But there would be no change in the sizes of sheets or rolls of paper ordered from a mill or dealer.

Paper buyers would continue to specify and purchase the exact sheet size and weight of paper required for a given job—for instance, so many pounds of 24x14-in. cover stock, or so many tons of 36-in. rolls of kraft. But both buyers and sellers would figure basic weights and prices of the cover stock on the new standard size of 25x40/1000 instead of the present 20x26/500. They would figure the kraft on a 25x40/1,000 basis instead of the present 24x36/500.

• **Would Cut Errors**—Since the new standard basic size of 25x40 in. equals exactly 1,000 sq.in., and the standard sheet count of 1,000 likewise is a decimal figure, untold man-hours of estimating time would be saved for printers, packagers, printing buyers, paper mills, jobbers, and retailers—practically every paper user except the casual retail purchaser.

Errors in estimating would be dimin-



Once upon a lot of times...

Many cities and towns throughout America could tell stories of men with vision and initiative who have seen the possibilities for progress in the automobile business . . . and made the most of them.

These are stories of the American way of working, in which men are free to take advantage of the openings ahead of them and to progress as far as their beliefs, desires and industriousness can take them.

By better serving the needs of their customers they built their businesses from some-

times small beginnings into substantial and thriving enterprises. In the process they provided employment opportunities for other men and women and contributed to the economic life of their communities.

Under America's traditional freedom of competitive individual enterprise, broad opportunities should continue to exist in the automobile business for ambitious, energetic business men.

TUNE IN MAJOR BOWES EVERY THURSDAY, CBS, 9 P. M., E. W. T.

Today dealers handling Chrysler Corporation products provide vital wartime automotive services

Chrysler Corporation

PLYMOUTH • DODGE • DE SOTO • CHRYSLER • DODGE Job-Rated TRUCKS

LET'S ALL BACK THE ATTACK—BUY MORE WAR BONDS



Our Strength

No nation ever approached the almost unbelievable production of American industry since this country has been at war. And no transportation system anywhere ever carried the volume of traffic moved by the American railroads.

Our combined unparalleled achievement is no overnight miracle. It stems from the love of liberty of our forefathers, who fought and died to establish a new design for living—the American way of freedom.

The keystone of this design is the God-given right of every individual, business and industry to venture, and to progress. Everything we have—our great industries, our railroads, our high standard of living . . . our strength . . . are the fruits of individual initiative and free enterprise.

What about the future? If we are to win that hoped and prayed-for Victory in 1944 or 1945, if we are to win the Peace, the individual and industry must be allowed to go forward without shackles and regimentation.

The flower of this land is fighting and dying on the battle fronts to preserve the American way of life. What shall we have to offer those who come back? A country where government is the master? Or the America of opportunity and free enterprise—where government is the servant?

If we lose this fight at home, we destroy all for which they fight.

NORFOLK and WESTERN *Railway*

ONE OF AMERICA'S RAILROADS . . . *All* UNITED FOR VICTORY!

BACK THE ATTACK—BUY EXTRA WAR BONDS

ished because the greatest single cause of conversion from hundreds or thousands of paper sheets to reams of 480 or 500 sheets and back again—would be eliminated.

Members of the committee are confident that a simple set of conversion tables would carry paper estimation buyers, and sellers through the transition to the new standard with a minimum of confusion.

• **Tough on Old-Timers**—Paper mills aren't quite so sure; their workers—many of them old-timers—have been going along with the old diverse standards for a good many years, and there is undeniably a re-education problem of no mean stature. Also there is the expense of new package labels and of new catalogs.

Some of the mills don't look too kindly on the proposal to cut pulp content 5%. All the mills like tonnage, and some of them would hate to see a wartime need for lighter paper grow into a peacetime habit.

• **Pulp Reduction**—The paper-saving feature of the dual plan comes through a recommendation that when the new paper catalogs are printed, the mills would adopt about 5% less substance, or pulp, in a sheet of paper—a reduction in thickness which is within the variation now permitted by trade customs. All printers at one time or another have used 66.5-lb. book paper for 70 lb., or 15-lb. bond for 16 lb., without being aware of it.

A 50-lb. book paper, for instance, would become a 100-lb. stock in the new listing instead of 105-lb. stock which would normally result from converting the old 25x38/500 basis directly into the 25x40/1,000 standard. Commercial printers, harried by a 25% cut in paper tonnage (BW—Jan. 1'44, p. 86), would get more square inches of printing surface to work with out of each ton available. For the duration, at least, their customers might applaud the pulp reduction idea.

• **An Old Proposal**—If the joint committee's proposal to WPB went no further than the 25x40/1,000 standard, it would be no more than exactly the same proposal worked out in 1917 by the National Bureau of Standards and the U. S. Government Printing Office, but never adopted by the paper industry. The 1917 proposal didn't include any plan for saving paper, however.

Officials of WPB's Pulp & Paper Division are looking for every possible means of saving paper, but they show no disposition to rush consideration or adoption of the committee's proposal. They seem to lean toward the idea of letting the Bureau of Standards carry the ball by means of its time-honored method of adopting and promulgating

standards through industry meetings, public hearings, and votes.

• **Under Discussion**—Meanwhile, representatives of the joint committee, which represents the powerful New York Employing Printers Assn., the Graphic Arts Assn. of Illinois, and other groups in the nation's commercial printing centers, are holding informal, off-the-record conferences with different paper-making groups affiliated with the far-flung American Pulp & Paper Assn. in the hope that they will take favorable action during the annual paper conventions at New York's Waldorf-Astoria, Feb. 14-16.

Probability is that the paper mills will seek to mark time like WPB, waiting to see what the Bureau of Standards may bring forth.

• **Plan Gets Backing**—The Boren-Halleck subcommittee of the House Interstate & Foreign Commerce Committee, which has been investigating the international newspaper situation, held a hearing Friday, Jan. 28, on the joint committee's standardization-saving plan.

Dr. Edwin W. Ely, the simplification and standardization expert of the Bureau of Standards, testified before the subcommittee and threw his authoritative weight behind the plan.

DDT Upsurge

Large volume production of delousing agent is planned. It boasts an excellent record and postwar expectancy.

Product of DDT, the powerful delousing agent and typhus control (with the name mercifully foreshortened from dichloro - diphenyl - trichloro - ethane), promises to be multiplied several fold during the current year.

• **Expansion Slated**—First synthesized 70 years ago by O. Fischer, a German chemist, but protected as recently as 1941 by U.S. Patent No. 2,329,074, covering its adaptation as an insecticide, DDT had but one domestic supplier at the turn of the year—the American-Swiss firm of Geigy Co., Inc., 89 Barclay St., New York, which holds the patent.

Last month E. I. du Pont de Nemours & Co. revealed that it was in pilot-plant production and was preparing at government request to build a new \$500,000 plant for volume production immediately.

This month, Merck & Co. reveals that it is "expanding its present facilities for large-scale production" of the chemical, likewise at government request.

• **A Sure Defense**—Back of the sudden upsurge in production is the fact that

WHERE LIFE DEPENDS ON

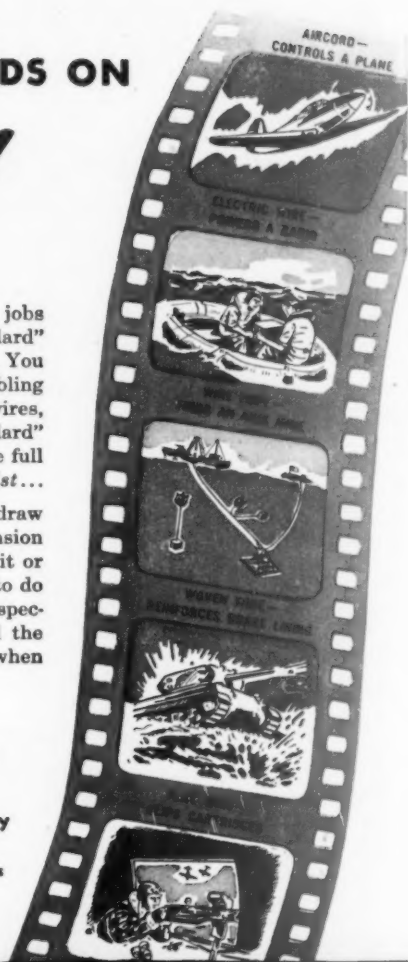
Wire!

YOU MAY take wire for granted on jobs like this, dismissing it as a "standard" product with a humble part to play. You can take it for granted, because Roebling doesn't. In the making of all of these wires, they are treated as anything but "standard" products... each of them demands the full time and facilities of a *wire specialist*...

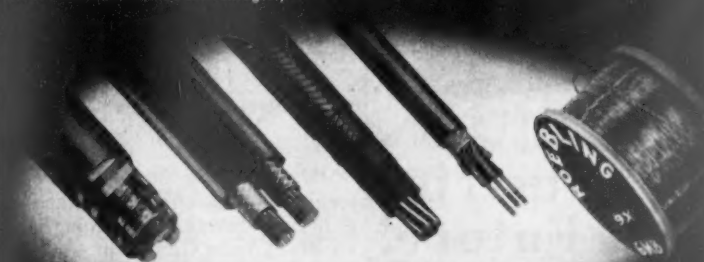
To select the right metal, to roll it, or draw it through the dies to the right dimension... finish it or insulate it or strand it or weave it... and have the equipment to do all of these jobs right... that's wire specialization. It calls for the mills and the know-how and the men you want when you say...

**It's a job
for the Pacemaker!**

JOHN A. ROEBLING'S SONS COMPANY
TRENTON 2, NEW JERSEY
Branches and Warehouses in Principal Cities



A product of one of Roebling's six wire specialist divisions: electrical wires and cables made with integrity




ROEBLING

PACEMAKER IN WIRE PRODUCTS

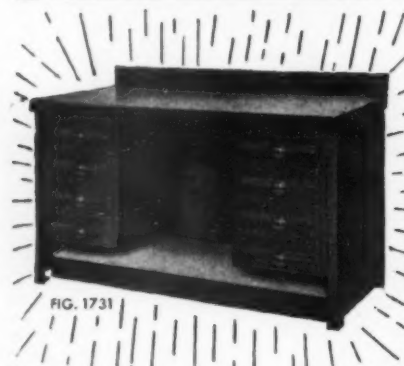
WIRE ROPE AND STRAND • FITTINGS • AERIAL WIRE ROPE SYSTEMS • COLD ROLLED STRIP • HIGH AND LOW CARBON ACID AND BASIC OPEN HEARTH STEELS • ROUND AND SHAPED WIRE • ELECTRICAL WIRES AND CABLES • WIRE CLOTH AND NETTING • AIRCORD, SWAGED TERMINALS AND ASSEMBLIES • SUSPENSION BRIDGES AND CABLES

**MARYLAND'S AMBASSADOR
OF GOOD CHEER**



FROM COAST TO COAST
**NATIONAL
PREMIUM
BEER**
PALE, DRY, BRILLIANT

THE NATIONAL BREWING COMPANY, BALTIMORE, MD



**for Industries
with a Future!**

HALLOWELL

DE LUXE SHOP FURNITURE

To better meet specific functional requirements of modern industry, we've given thought to your future shop equipment needs, and as a result have designed an entirely new line of shop furniture, which will be available shortly after the war. These new "Hallowell" workbenches, desks, tool stands, chairs, etc., will have the same outstanding sturdiness and durability that characterizes present "Hallowell" items. Their standardized construction with thoroughly interchangeable shelf, cabinet and drawer units will meet practically any demand.

OVER 40 YEARS IN BUSINESS

STANDARD PRESSED STEEL CO.

BOX 598

JENKINTOWN, PENNA.

the armed forces are confirming in the field what the U. S. Dept. of Agriculture learned experimentally last May—that DDT is such sure defense against and death to body lice that a single dusting of a service man's underclothing will give a month's protection (even though it is laundered once a week) against the insects, hence against the micro-organisms of typhus.

That volume production is demanded is not surprising in view of one naval medical officer's report that the insecticide has proved itself "four times as effective as a previous powder used, known as M.Y.L."

• **Has Good Record**—Postwar demand is expected to be excellent for a variety of reasons: (1) DDT has no obnoxious odor; (2) it was building a good record of effectiveness against plant lice and the codling moth which infests and destroys apple trees; (3) it is being found as effective against house flies, clothes moths, and other insects as against the more intimate body lice.

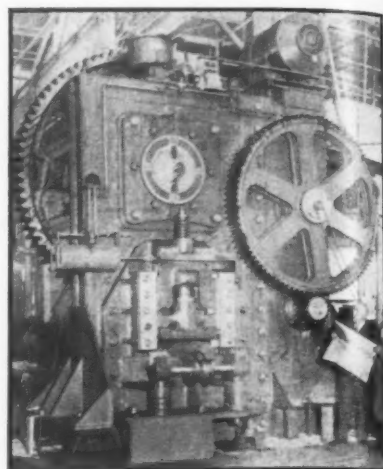
Flood of Spuds

Torrent of water sweeps 750,000 lb. of potatoes through unique dehydrating plant where man-made hurricane dries them.

King of the potato world at 33, J. R. Simplot is almost a legendary figure. A torrent of water sweeps 750,000 lb. of potatoes into his Idaho dehydrating plant every 24 hours, where they are dried by a man-made hurricane. Simplot built the plant himself—without government financing.

• **Got Ahead Quickly**—At 19, Jack Simplot got a job sorting Idaho russets. A year later, he was buying and selling 50 carloads by methods that left some competitors behind. Personable and friendly, he rapidly built up a potato business until he was running 18 warehouses, with 500 employees, when the war broke. Thereupon, he joined others in his first fling at dehydration, handling onions at Yuba City, Calif. When this operation proved entirely too pungent for folks who lived nearby, he made a beeline for Idaho, heart of the potato and onion country.

• **Novel Cleaning Method**—At Caldwell, Idaho, he has built a warehouse to hold 1,000 carloads of potatoes at a time, a mere three weeks' supply for the dehydrating plant. Potatoes are emptied from railroad cars by a firehose stream of water, which sluices them across to the plant, cleaning the spuds as they are delivered, a trick brought over from the sugar-beet industry. Spuds go up an ele-



"SCISSORS" FOR STEEL

Cutting steel ten inches thick is literally a snap for a huge new billet shear whose jaws exert a 4,500,000-lb. pressure. Built by Buffalo Forge Co., the 825-ton cutter (above) is going to an important war job with Timken-Detroit Axle Co. Said to be the biggest of its kind, the shear contains alloy-steel knives which are driven by a 125-hp. motor through an 11-ft. gear.

vator, to be cut by the ton into julienne slices. Lye-peeling saves 50% to 66% in the amount of potato lost.

• **Dried by Hurricane**—In 30 drying tunnels 60 ft. long, the potato strips are dried by a hurricane of hot air, 800 ft. per minute.

SEAGOING GAS TURBINE

First ship to be propelled by a gas turbine (BW—Jul. 3'43,p59) promises to be not an oil tanker, but a small 7,200-ton freighter of the C1-M-AV1 type, the design of which has been kicking around since 1939 awaiting official approval.

The Elliott Co., Jeanette, Pa., will build the power plant which has been designed through the cooperation of engineers of the Maritime Commission and the National Research Council, and will develop between 2,000 hp. and 3,000 hp.

Installations of gas turbines in other C1-M-AV1's and in larger ships probably will await test runs of the small prototype. That the commission would welcome success is assured by a rough estimate that a 4,000-hp. gas turbine would occupy no more space in a 10,800-ton Liberty ship than its present conventional 2,500-hp. power plant and would give it substantially more speed.

"I never sit around waiting for motor repairs on this machine. Those Century Motors keep it humming three shifts every day."



CENTURY TOTALLY ENCLOSED FAN COOLED MOTORS—Protect the Windings, Bearings, and Other Vital Parts Against the Destructive Effects of Abrasives—Dusts— Coolant Mists—Etc.

That means the motors last longer—especially on a 24-hour production basis... They stay on the job day after day.

Production speed and accuracy are aided by Century Motors' unusual freedom from vibration. The rigid construction of frames and end brackets helps maintain these original uniform characteristics throughout the long motor life. In addition, Century totally enclosed fan cooled motors are liberally ventilated to keep the windings and bearings cool.

Ask for Century TEFC (Totally Enclosed Fan Cooled) Motors for atmospheres charged with abnormal quantities of destructive material, that give you extra hours of production, fewer shutdowns with less expense for care and upkeep—at only a little extra cost over Century general purpose, open rated motors.

Write for your
copy describing
Century TEFC
Motors.



CENTURY ELECTRIC COMPANY 1806 Pine Street, St. Louis 3, Missouri
Offices and Stock Points in Principal Cities



Here's Your Answer to the PROBLEM of CABINETS for ELECTRONIC EQUIPMENT

For neatness, strength, light weight, and ease of assembly, investigate this proved, easy method of building all-metal cabinets and housings for your electrical, radio, and electronic equipment.

Lindsay Structure assemblies can help you speed up your production of cabinets and housings at once. With Lindsay Structure no tooling up is necessary—no special machinery is required. No riveting, no welding, no waste.

It's easy to order Lindsay Structure units. You merely furnish specifications, and a complete assembly—panel sheets, framing members, fittings, all die-formed, die-cut, die-rolled to exact dimensions—is shipped to you knocked down and ready to put together in your factory or on the spot.

Lindsay Structure engineers will give you immediate service on your pilot jobs. Send blueprints to: Lindsay and Lindsay, 222 West Adams Street, Chicago 6, Illinois; or 60 East 42nd Street, New York 17, New York.



Lindsay Structure method of assembly.
Only simple tools are necessary.

LINDSAY STRUCTURE

U. S. Patents 2017629, 2263510, 2263511
U. S. and Foreign Patents and Patents Pending
For details, see Sweet's Catalog File

IT S-T-R-E-T-C-H-E-S STEEL

NEW PRODUCTS

Constant-Speed Propeller

The Zimmer-Thomson "Iso-Re" Constant Speed Aircraft Propeller, new product of the Zimmer-Thomson Corp., 44-16 23rd St., Long Island City, N. Y., promises to do for the private flyer what the much more expensive electrically actuated constant-speed propeller does for the pilot of a military plane or civilian transport. After the armed forces are supplied with their requirements for liaison and training planes, the propeller will be offered to civilians as a self-contained unit, including an automatic governor and pilot-selective control, for quick and easy installation in any plane of light or medium power.

Change of blade pitch to maintain constant propeller speed, hence optimum bite on the air regardless of flying conditions, is accomplished through two compact, parallel V-belt pulley systems linking the propeller shaft with an adjacent governor shaft. The pilot establishes the propeller speed he desires on the selector. While one system operates at a fixed drive ratio, the other, equipped with two variable-diameter pulleys, changes its ratio according to the demands of a small, centrifugal, fly-weight governor. When any deviation from the desired speed setting occurs, the governor changes the pitch of the variable drive, which, working in combination with the fixed ratio drive in an undisclosed manner, changes the pitch of the blades. The response to required pitch changes is said to be "exceptionally rapid . . . positive in action."

Self-Loading Reel

An ingenious "drop-center" on the new Model 3 Powertilt Wire Reel, man-



ufactured by the F. J. Littell Machine Co., 4187 Ravenswood Ave., Chicago, promises to take the last element of hard

work out of placing a heavy 250-lb. coil of wire on a horizontal reel.

Former models, equipped similarly with a counterweight and powered by an electric motor, tilted automatically from the horizontal to the vertical position to receive a coil of wire and returned automatically to the horizontal, but someone with a strong back had to lift the coil from the floor to the reel's center. With the drop-center, even a slight girl worker can roll the coil to the reel, which has been previously lowered to the loading position, and let gravity tip the coil onto the center. When the motor has lifted the coil to the horizontal, it can be slid easily into operating position and the drop-center locked at center.

Portable Projection Stand

The new Filmo Porta-Stand looks like a suitcase when closed, yet expands in



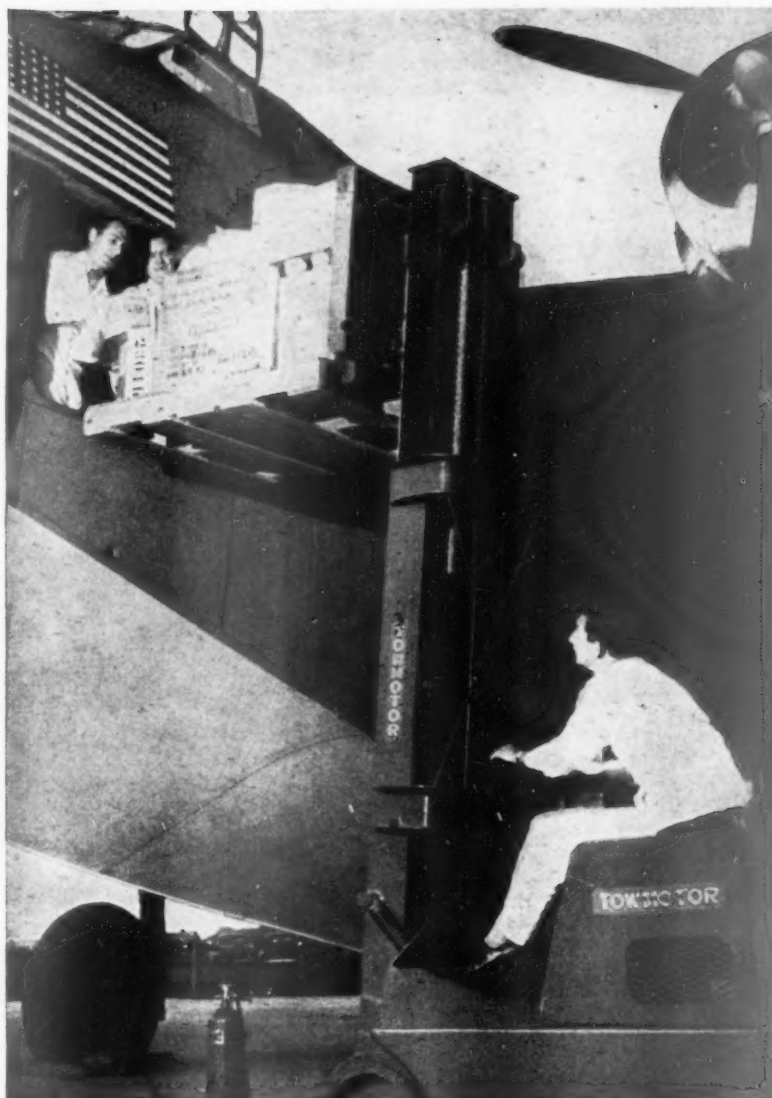
a moment to a rigid tripod 42 in. high with a 24½x12½-in. platform large enough to hold an 8-mm. or 16-mm. projector during movie showings. Its three legs come into position by simply pulling the two halves of the case apart, and fold back into place when the case is closed.

Bell & Howell Co., 1801 Larchmont Ave., Chicago, uses basswood plywood and other noncritical materials in the construction of the stand, hence it is available without a priority.

Lettering Machine

Principles developed by the Underwood Elliott Fisher Co., 1 Park Ave., New York, for its bookkeeping machines, have been utilized in the design of its new "Elliott Fisher Electric Machine for Lettering Engineers' Drawings." The same flat platen which permits typing

Business Week • February 12, 1944 65



PHOTO—AMERICAN EXPORT AIRLINES

To efficiently load and unload

modern transportation equipment,

equally modern materials handling equipment

is required. What's the answer?

Flexible, easy-to-maneuver, time and

money saving

TOWMOTOR



THE 24-HOUR ONE-MAN-GANG

TOWMOTOR CORPORATION • 1221 E. 152ND STREET, CLEVELAND 16, OHIO

STRAIGHT-GAS POWERED INDUSTRIAL TRUCKS EXCLUSIVELY—SINCE 1919



One head is better than Two!

For 25 seconds, the bombardier is both that and pilot. No time for two heads to get together. In those paltry moments, about half the time you need to read this, he must make a number of sighting adjustments. Speed, bomb fall, range, and drift must be precisely related to score "on the nose" hits. All, in 25 seconds. Who, then, will steer the ship?

★ Of this need, the Norden Automatic Pilot was born. Holding the plane level and true on its course while lightning answers to knotty mathematical equations are "figured" by the electric computer is the automatic pilot's job.

★ And number one among our jobs is the production and delivery of those automatic pilots and electric gyro motors for the Norden Bombsight System. We like to think that the five years we've been at it help make things easier for the bombardier... for the 25 seconds that count. For the 24-hours-a-day in American industry that count... ask us for help with your needs in electric motors, hoists, cranes, machine drives, and Moyno Pumps. Write, phone or wire Robbins & Myers, Inc., Springfield, Ohio. In Canada: Robbins & Myers Co. of Canada, Ltd., Brantford, Ontario.

ROBBINS & MYERS, Inc.

FOUNDED 1878

MOTORS · HOISTS · CRANES · MACHINE DRIVES · FANS · MOYNO PUMPS

directly into an open, bound account book makes possible the laying of a drawing or tracing of any size under the business part of the machine.

The drawing can be moved in or out or from side to side, but wherever it is



positioned, 296 sq. in. of its surface are in lettering position and in full view of the operator. Dimensions and descriptions may be typed accurately at any location within the area; new areas of very large drawings can be easily moved to and clamped into position. The machine is equipped with a completely electrified, standard typewriter keyboard and a new "blueprint ribbon" made especially for sharp reproduction. The electrically controlled keys can be adjusted for lettering of any intensity.

New Products Briefs

Also reported this week, not only for their interest to certain designated business fields, but also for their possible import in the postwar planning of more or less allied fields and business in general, are the following:

● **Electronics**—New Eby Miniature Tube Sockets are being produced by Hugh H. Eby, Inc., 18 W. Cheltenham Ave., Philadelphia 44. They are equipped with precision, silver-plated, heat-treated beryllium-copper contacts for long life and high conductivity.

● **Welding**—Century Electric Co., St. Louis 3, is bringing out a new Century AC to DC Motor-Generator Set said to be big enough to "supply welding power for from 15 to 30 men welding at the same time." A 160-hp., a.c. motor drives a 70-v., 1,500-amp., d.c. generator which can be "operated in parallel, when large quantities of power are required." . . . General Electric Co., Schenectady, N. Y., is bringing out a new G-E Current-Regulating Compensator for resistance welding machines. It is an electronic device which is said to require no further adjustment after the "predetermined heat-control setting for a particular job has been made," and promises to hold the welding current to a variation of plus or minus 2% under conditions that would normally vary ten times as much.

FREE 3 Valuable Reports on What to Do About Hiring, Firing, and Paying Employees

1 SALARY FREEZING AND HOW IT WORKS

Practical hints on how to conform to new rules of Treasury Dept. and War Labor Board concerning wage increases, bonuses, rates of pay, overtime, wage and salary rate schedules, etc.

2 PENSION PLANNING CHART

A copyrighted quick-reference chart that shows you approved methods of reducing employee turnover with pension trusts and profit-sharing plans. Benefits and requirements of each type of plan are clearly indicated.

3 CURRENT RESTRICTIONS ON HIRING AND FIRING

A handy guide to the rules and requirements regarding statements of availability, referrals to U. S. Employment Service, part-time employees, new employees, discharges, lay-offs, etc.

These three specially-prepared Reports are available to you at once, without charge, in conjunction with an Introductory Subscription to the new weekly Prentice-Hall LABOR LETTER.

Quick, clear answers to your questions on how to handle salary-and-wage increases... job-freezing... bonus payments... commissions, etc.

With employees pressing for pay increases—with trained help leaving your company for other jobs—with new workers progressively harder to find—it's DANGEROUS AND COSTLY to make mistakes in hiring, paying or releasing employees under the shifting Salary and Job Freezing regulations.

To help you avoid costly errors—to save you time and trouble in handling job transfers and wage payments, Prentice-Hall invites you to accept:

3 FREE REPORTS—"SALARY FREEZING & HOW IT WORKS"—"PENSION PLANNING CHART"—"CURRENT RESTRICTIONS ON HIRING & FIRING", available at once as part of an introductory subscription to:

THE PRENTICE-HALL LABOR LETTER—a weekly 8-page guide to the current developments you **MUST** know about to keep abreast of what you **CAN** and **CANNOT** do to make changes in wages and salaries, to encourage your employees to stay with you, to grant promotions, pay bonuses, install incentive systems, and properly comply with the job-and-wage control requirements.

A single suggestion in the weekly Prentice-Hall LABOR LETTER may save you a hundred times the small subscription cost!

Typical of the help you get from the weekly Prentice-Hall LABOR LETTER are clear, practical answers to questions such as: Can salary payments be based on a percentage of profits? Can salesmen be paid commissions in excess of last year's payments? When are you NOT permitted to grant merit increases if you employ 30 or less workers? If you employ 31 or more workers? What are you required to do about re-hiring returning servicemen?

Each week, the Prentice-Hall LABOR LETTER brings to your desk the authoritative facts you need to avoid delays, headaches and costly confusion on problems of compliance with the constantly-changing requirements of wage-hour, salary-freezing, and manpower control laws.

Special Introductory Offer

The new Prentice-Hall LABOR LETTER is available to you today at the special introductory rate of only \$2 a month, payable on an annual basis. This small fee is insignificant compared to the value of the information you receive—ideas, plans, suggestions and methods of handling employee problems—practical, down-to-earth facts that can save you time, mistakes and money the very first month you subscribe! **SEND NO MONEY NOW.** Just mail the coupon below, and the three Complimentary Reports will be sent you, immediately, along with your first copy of the LABOR LETTER.

PRENTICE-HALL, INC., 70 Fifth Ave., New York 11, N. Y.

WARNING! Steer clear of DRASTIC PENALTIES for mistakes in handling salary-and-wage payments

(Answer "yes" or "no") If answer is "yes," has the corporation in this return taken a deduction for any amount of wages or salaries representing an increase or decrease in rate? (Answer "yes" or "no") If answer to second question is "yes," attach statement explaining all such increases or decreases.

The Internal Revenue Bureau requires you to attach to your March 15 tax return a statement of the wage increases granted during 1943. If you make a mistake, the total of all salaries wrongly increased—not just the amount of the increases—will be disallowed as a deduction on your tax return. One slip-up on this may cost you thousands of dollars! Be sure you know the answers to critical questions such as:

SALARY FREEZING: How many merit raises may you give an employee in a year? How many seniority raises? What is the maximum increase permissible at any one time?

JOB FREEZING: What are the latest rules of the War Manpower Commission regarding your right to hire and fire employees? What can you do about getting your business placed in an "essential" category?

RATES OF PAY: How can you quickly establish rate ranges for particular job classifications? Must these be approved by the War Labor Board? What should you do about fixing pay rates for jobs newly created?

OVERTIME PAY: How is time-and-a-half overtime computed for salaried employees? For wage-earners? If you extend your work-week, can or must you pay overtime to conform with the Wage-Salary Stabilization law? How should such extra pay be computed?

BONUS PAYMENTS: What bonus payments can you make without approval? In what cases can bonus payments be increased? Can a bonus arrangement be dropped and a salary increase substituted?

PROMOTIONS: What is the maximum increase you may give to an employee advanced to a new job within your company?

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FIRM

NAME

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Crump Has Plans

Memphis political chief asks acquisition of profitable traction system and other utilities to help balance city budget.

It was a great day for Memphis—in the opinion of Edward H. (Boss) Crump—when the city took over the electric and gas distribution systems in 1939. Now he has a greater day in the works.

• **Expansion Plans**—The Memphis political leader has plans for the city to acquire other privately owned utilities and to use their profits to help pay the Memphis city tax burden.

In the offices of the Southern Bell Telephone Co., and Western Union Telegraph Co., announcement of those plans was greeted with apprehension.

• **Put a Date on It**—In the offices of the Memphis Street Railway Co., it was greeted with a look of resignation, for Crump's plans for taking over the street railway system were a matter of

record. His latest announcement merely added the detail that negotiations between the city and the railway company would start before the end of 1944.

What Crump had in mind was that the Memphis city budget for 1944 calls for spending \$5,862,328. In addition, the city plans to spend \$1,323,040 to retire bonded indebtedness. The school budget has not yet been set, but it may equal the 1943-44 school year total of \$2,903,000. This adds up to \$10,088,368.

• **Needed \$7,000,000**—Profit of the municipal light plant for 1943 totaled \$3,000,000, according to the city's bookkeeping. From Crump's viewpoint, this leaves the taxpayers bearing two-thirds of the municipal load. Therefore, he's looking for other sources of utilities income that can be tapped.

After a long and bitter fight between the Crump political organization and the Power & Light Co., a subsidiary of National Power & Light Co., Memphis took over the distribution of electricity and gas on June 28, 1939.

• **Retiring the Debt**—When the Light, Gas & Water Division of the city

government took over the light plant assumed a bonded debt of \$27,495,000. It immediately hooked on with the Tennessee Valley Authority and reduced rates; it has retired \$11,517,000 of the bonds. Of \$5,546,000 bonds retired in 1943, only \$946,000 had matured. Profits for 1943 as announced by the city were \$3,184,335, an increase of \$406,506 over 1942.

In looking about for more utilities to help with the tax load, Crump first spotted the profit-making Memphis Street Railway Co., a subsidiary of the Memphis Generating Co., which is in turn a subsidiary of National Power & Light. It carries more than 17,000,000 passengers each year.

The Tennessee legislature has passed a bill giving Memphis permission to acquire the generating company and, in addition, to exercise more power over the utilities that are operating within the city.

• **Franchises Expired**—How do the telephone company and the telegraph company figure in Crump's plans?

Their franchises, as they have expired, have not been renewed, and the telephone company is operating without official permit. Crump's plans have not been revealed, but if the privately owned utilities were required to pay stiff annual license fees, they might prefer to follow the light and gas plants into the city's portfolio.



Resplendent with cane and chrysanthemum, "Boss" Ed Crump tours the water front with his palace guard: (left to right) Mayor Walter Chandler, public works commissioner O. P. Williams, and Sheriff Oliver Perry. The Mississippi packet at the wharf

is picturesque, but another form of transportation holds Crump's eye—trolley cars. He plans to take them over in the city's name and further settle his score with local utility interests, which he accuses of attempting to unseat him as mayor 30 years ago.

Dividing the Loss

Pennsylvania sues 5,000 policyholders who were insured in a bankrupt casualty company. Many others have paid off.

Some 5,000 Pennsylvania policyholders of the bankrupt Keystone Indemnity Exchange are being sued in 40 county courts by State Insurance Commissioner Gregg L. Neel for their share in the organization's losses. Thus, the spotlight of publicity is again turned on one of the most famous cases in recent years of cheap insurance backfiring on its purchasers.

• **Cut-Rate Protection**—Headed by Fletcher W. Stites, former member of both houses of the state legislature, Keystone had its headquarters in Philadelphia and offered motorists cut-rate insurance protection.

Many customers assumed that the organization was identified with Keystone Automobile Club, but it had no connection. Not until the insurance company went into bankruptcy at the depth of the depression did most of them learn that it was unincorporated, had no offi-

cers, and was a reciprocal association under which policyholders absorbed losses as well as profits.

Complaints that casualty claims were not being met led to an investigation, resulting in Keystone's being declared insolvent in Dauphin County Court in May, 1933.

• **Many Ignore Claims**—The current suits were entered under a ruling by the same Dauphin County Court in 1938—upheld by the State Supreme Court in 1940—which assessed each of Keystone's 27,000 policyholders one premium, averaging \$80 to \$100. Policyholders being sued currently represent a group who have ignored as many as seven notices and warnings that they must pay their share of the \$2,843,233 in premium assessments.

Claims amounting to \$350,000 are now outstanding, but the full assessment is expected to be more than enough to meet debts. The remainder will be returned to subscribers, when the books are closed, according to Commissioner Neel.

• **Others Pay Off**—Court proceedings were entered against 4,500 Maryland shareholders of Keystone, and against 7,500 in the District of Columbia during 1941. A majority of these are said to have made settlement.

Other claims may yet be filed, the total number being difficult to determine, since policyholders daily are making arrangements to pay the assessment.

B. & O. in Squeeze

Huge debt faces road as wartime earning peak is passed. Extension of notes and RFC debt are forecast in Wall Street.

In early 1827, a group of Baltimore business men, worried about the local trade being lost to New York State's brand-new Erie Canal, met at the home of George Brown, a leading banker, to consider countermeasures.

• **Something New**—Stirred by reports of the growing success in England of a new and faster method of transportation, the group soon agreed that the canal's menace could best be offset by introducing something new to America, a "double railroad" running westward to the Ohio River.

Their decision quickly led to founding of the Baltimore & Ohio Railroad, the nation's first rail system and ever since a leading eastern trunk line. While the B. & O. has always operated under its original charter, it ran horse-drawn rail cars so long on the first segment of its line that other roads walked off with

the honor of operating America's first steam-drawn train.

• **Serves Important Area**—On the map, at least, it would seem that the B. & O. would take the honors for making money, since it serves the East's most important industrial areas and reaches such pivotal traffic-producing centers as New York, Chicago, St. Louis, Cincinnati, Pittsburgh, Washington, and Baltimore.

But that hasn't always proved to be the case, especially since 1929. For one thing, there is keen competition for the generous amount of traffic that is available. Also, B. & O. suffers from a heavy funded debt that, except in good years, requires an unusually large percentage of its gross revenues.

• **Critical Stage**—Those unfavorable factors weren't long in making themselves felt soon after 1929 when rail traffic (especially the heavy-goods haul on which B. & O. is so dependent) began to slip. Before long, B. & O. finances had reached the critical stage.

While the war has helped the road's position, it has been far from a cure-all. Despite many recent months of record-breaking earnings, B. & O. again is facing a mountain of early debt maturities (this time \$114,000,000). Wall Street expects the road to seek a composition with creditors, thereby averting any chance of Section 77 reorganization.

B. & O. operations after 1929 declined so swiftly that by 1932, revenues, which had averaged \$242,000,000 yearly in 1923-1929, were down to \$125,000,000. Instead of net income within the 16-to-29-million range of earlier years, B. & O. reported a \$6,335,000 deficit after paying 1932 interest charges.

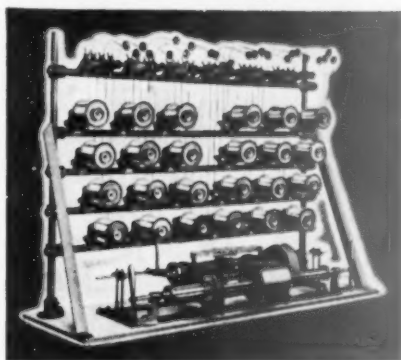
• **Recovery Was Slow**—Operations after 1929 had so weakened B. & O. finances that the road barely managed to escape bankruptcy in 1932, when it had heavy maturities to meet. A \$32,500,000 loan from the newly organized Reconstruction Finance Corp. saved the day.

Subsequent earnings recovery was slow, and debt maturities were so heavy that RFC advances of \$97,000,000 (since reduced to \$72,000,000) finally proved necessary to keep the road out of bankruptcy.

Only once in the 1932-1939 period was any public financing tried by B. & O. This was in 1934, when it offered \$50,000,000 notes, secured by its control of the Reading, and the RFC, which had agreed to relieve the offering group of all the notes it couldn't sell, ultimately had to purchase \$13,500,000 of them.

• **Optimism Fades**—However, bondholders long had increasingly high hopes that B. & O. would finally emerge from its troubles with much of its old

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earning power restored. By late 1936, its junior bonds (which sold for 25¢ on the dollar in the early 1930's) were selling above par.

But optimism soon faded. In 1937, B. & O. failed to earn its fixed charges by a small margin. In the first half of 1938, as depression conditions returned, the loss after interest rose to almost \$12,000,000. At that time, the best the management could promise was that the full 1938 loss might be held under \$14,000,000.

By mid-1938, prices of junior B. & O. bonds had flopped back into the 20's. Even the senior 4% first mortgage issue also was being traded on the Big Board at 35% of par value.

• **He Was Right—But Daniel** (Uncle Dan'l) Willard, B. & O. president at that time, had no intention of giving up. He figured bondholders would consider half-a-loaf better than none, and he asked them to accept imposition of a drastic voluntary reorganization plan.

Under this, it was proposed that holders of \$163,000,000 of early maturities consent to extension of due dates for five-to-ten-year periods; also, that \$31,422,000 fixed charges be cut to \$19,645,000, and the rest be made payable for the next eight years, only to the extent covered by yearly earnings.

Enough bondholders approved the plan to warrant its consummation in 1939 under the Chandler Act, which permits such voluntary reorganization plans when approved by the Interstate Commerce Commission and the courts.

• **Excellent Showing**—The plan, too, proved a good thing for security holders. Because of the war, earnings soon reached levels that permitted the cleaning up of all accruals of deferred interest. Also, the B. & O., in accordance with its agreement under the plan, has since used a substantial part of its net earnings for debt retirement and in 1942 was able to cut total debt (funded debt and RFC loans combined) by some \$72,000,000 or almost 11%.

In 1942, B. & O. covered all interest charges two and one-half times and, aided by heavy tax credits, also reported net earnings of over \$45,000,000. Because of rising operating costs and much higher taxes, 1943 net probably didn't exceed \$30,000,000, but this represents another excellent showing, since interest was covered by a big margin and some \$18,000,000 of net will be earmarked for 1944 debt retirement.

• **Serious Problem**—Earnings in 1944 probably will run under 1943 levels but should continue of good proportions. In 1944, B. & O. has more serious problems to contend with than at anytime since 1939.

For one thing, the 4% secured notes,

extended for five years in 1939, will come due Aug. 4, 1944, and are no picnic to handle since \$42,000,000 are still out (including the RFC's \$15,500,000). Also, on Nov. 8, all B. & O. \$72,000,000 of direct RFC debt matures.

It is true that cash holdings recently were around \$70,000,000 and working capital was around \$60,000,000. However, B. & O. will have to use substantial cash for tax payments early this year, also \$18,000,000 for debt reduction shortly, and contingent interest payments this spring will absorb another \$9,000,000.

• **Note Extension Likely**—Consequently, though the 4% secured notes are now selling in the 90's, Wall Street generally expects only a part payment in cash and extension of the rest. The whole operation is expected to be handled under provisions of the McLaughlin Act.

Most of the Street, too, believes that the RFC will prove cooperative in coming conversations concerning the B. & O.'s debt to that agency, and that an extension of the notes will be worked out.

• **Others Realistic**—Eventually, however, the B. & O. will have to take concrete steps toward a permanent settlement of its financial problems. The road already has seen the peak of its war earnings. Also its present interest adjustment plan will expire not so many months hence, and, besides having a heavy RFC debt hanging over it, B. & O. in 1948 will face the difficult task of handling the maturity of some \$146,000,000 of senior first mortgage issues.

Big Buyers Lag

Five largest insurance companies take \$865,000,000 war bonds, but this falls far short of quota set last year.

Subscriptions by the nation's life insurance companies to the new Treasury series during the Fourth War Loan Drive, now drawing to a close, have been running well under the levels of the previous campaigns.

• **It Was Expected**—This trend had been anticipated by the Treasury (BW-Jan.15'44,p107), but the drop in life insurance company subscriptions has been particularly noticeable in comparison with last fall's campaign.

Last fall a number of insurance companies were able to prepare for the drive by planning profitable sales of municipal bond holdings to augment the funds they normally would have

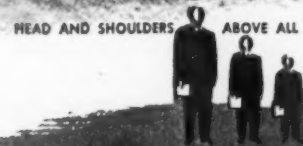
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available for purchases during the campaign.

Also, a special ruling of the Treasury permitted life companies to subscribe during the campaign in anticipation of the receipt of investment funds that actually did not become available until after the drive was over. But these factors don't apply during the current campaign.

• **"Big Five" Cuts Down**—The present situation is well illustrated by the size of the war bond purchases recently made by Metropolitan Life, Prudential Insurance, New York Life, Equitable Life, and Mutual Life of New York, the concerns known generally in financial circles as the "Big Five."

In the first three weeks of the present drive, this group subscribed \$865,000,000 compared with \$1,390,000,000 in the third campaign of last fall, \$1,318,000,000 during the second drive, and \$881,000,000 in the first campaign in December, 1942.

Metropolitan Life, alone, has only purchased \$350,000,000 of bonds thus far in the present drive compared with a \$425,000,000 total last fall; Prudential \$100,000,000 compared with \$275,000,000; New York Life \$160,000,000 compared with \$269,000,000; Equitable \$200,000,000 compared with \$300,000,000; and Mutual Life \$55,000,000 compared with \$121,000,000.

• **Aiming at Individuals**—It is because the Treasury foresaw this situation in connection with the present drive that it aimed its big guns directly at the war-swollen incomes and savings of individuals.

Distillers' Credit

**Group of 23 banks sets up
\$75,000,000 credit to finance
Frankfort deal and to bolster
Distillers-Seagrams' capital.**

Distillers Corp.-Seagrams, Ltd., the world's largest whisky distiller, won't have to offer any new funded debt or preferred stock to finance its recent purchase of the Frankfort distilleries (BW-Oct. 30 '43, p. 20) at a cost of almost \$42,000,000.

• **Bank Credit Arranged**—Instead, it has arranged a \$75,000,000 credit with a group of 23 banks, not only to finance that important acquisition on a long-term basis, but also to supply any temporary demands for additional working capital that may arise.

Under its agreement with the banking group, which embodies one of the largest pieces of industrial financing on record, Seagrams has had at its dis-

proposal since Jan. 24 a term credit in the amount of \$50,000,000. This carries a 2½% interest rate, and the amount of the credit is to decline \$2,500,000 annually to \$40,000,000 during 1949, the fifth year of its life.

• **For Peak Sales**—The other \$25,000,000 will be available only during the company's season of peak sales (from Sept. 1 to Apr. 1) over a five-year period and such loans are to carry a 2% interest rate. All borrowings under the agreement will be guaranteed by the parent and made to American operating subsidiaries.

The consent of stockholders to a banking transaction of this character is not needed. But Seagrams has called a special meeting of stockholders to be held Mar. 1. Shareholders will be asked to consent to various changes in the bylaws in order to increase the company's borrowing capacity and strengthen further the position of the preferred stock.

• **Would Tighten Restrictions**—The proposed changes, if adopted, would tighten restrictions on the payment of dividends on shares junior to the preferred stock and virtually freeze \$18,000,000 of the earned surplus account, too, to prevent its ever being used to redeem or purchase such shares or to pay dividends thereon.

P. S.

Unconfirmed reports indicate that the long-expected Park & Tilford "drinkidend" (BW—Dec. 25 '43, p109) may finally consist of a right, per share, to buy three cases of goods at the company's wholesale price. However, P.&T. is said to need additional inventories to maintain a fair volume of sales to the trade and no such distribution is expected until its present stocks have been strengthened. . . . Additional new security offerings expected when the present war bond drive is over (BW—Feb. 5 '43, p50) include 50,000 shares of Hooker Electrochemical \$4.25 preferred and that part of 94,439 shares of Abbott Laboratories common stock not taken by stockholders, who have the first crack at it. Also, the Greyhound Corp. may offer \$10,000,000 of 15-year 3% debentures and \$5,000,000 of 4½% preferred stock. . . . The newly reorganized Minneapolis & St. Louis Railway (BW—Dec. 11 '43, p106) has just called for retirement on May 1 of all the \$2,015,000 of general mortgage income bonds issued as a result of its financial revamping. This issue is the sole funded debt outstanding against the property, and completion of the operation will make the road the only Class I carrier operating with no funded debt outstanding.

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WAR BUSINESS CHECKLIST

A digest of new federal rules and regulations affecting priorities and allocations, price control, and transportation.

Increased Civilian Supply

The use of iron or steel in the manufacture of automotive accessories, permitted under WPB Order L-158, is authorized for truck replacements or in new trucks, by Conservation Order M-126, as amended, which also allows metal to be used for specified types of heaters, pumps, hat-brim wire, and other articles. . . . Supplies of processed Concord grapes, which were set aside under Food Distribution Order 80 and have not been allocated for use in fruit spreads or bottled grape juice, are almost wholly released from restrictions by an amendment to FDO 80.1. . . . In view of improved supplies, WPB has announced arsenical insecticides may be used for protection of shade trees, nurseries, lawns, and golf courses, while stating that steel is free for drums in which to ship these insecticides, as a result of military contract cancellations.

Surplus Property

Unified procedure for disposal of surplus property has been established by the Maritime Commission. First preference in obtaining material goes to contractors in the shipbuilding industry; then to other government departments, war contractors, industries reconverting to civilian production, and, last, to competitive bidders. Each shipyard should report to regional directors of construction on the East, West, and Gulf coasts, and in the Great Lakes area all property in excess of the need under a particular contract. These reports will be filed in Washington with the Surplus Property Section of the Procurement Division, which will issue statements as to quantities and kinds of materials available. No property will be sold above maximum prices established by the controlling government agency.

Shoes

To meet the need for upper leather in infants', children's, and misses' shoes, WPB has directed that tanners set aside a stated amount or a given percentage of their monthly civilian production for this purpose. About 20% more leather of this type than was available in 1943 is looked for as a result of this ruling. (Directive under General Conservation Order M-310.)

Foods

To help provide additional storage space for meats by moving other stored foods, OPA has granted bakers, ice cream makers, and other manufacturers a temporary increase in the amount of frozen fruits they may use. This increase will be deducted from later allotments. (Amendment 6, Revised Ration Order 13.)

Shippers of wine, beer, and canned goods are asked by Office of Defense Transporta-

tion to make voluntary cuts of 50% in their use of refrigerator cars in the next 60 days. Purpose is to make these cars available for shipments of perishable foods. There is no restriction on the use of the cars if they are going into the perishable-food producing areas.

Rayon Knit Fabrics

Prices to apparel manufacturers are lowered on most rayon knit underwear and outerwear fabrics by an OPA ruling that establishes dollar-and-cents ceilings for fabric manufacturers, jobbers, and converters to replace the former March, 1942, ceilings. By equalizing manufacturers' returns from low-priced and higher-priced fabrics, this action is expected to encourage production of less expensive rayon knit garments. Consumers will benefit through either cheaper prices or improved quality. Fabrics covered by the regulation include, with a few exceptions, only those consisting of 50% or more by weight of filament rayon yarn. (Regulation 508.)

Synthetic Rubber Cement

Controls over synthetic rubber cement have been tightened, so that use of such cements is now banned unless expressly allowed in the rubber regulations. Restrictions on Neoprene cement are especially rigid to conserve that product for essential war purposes. No rubber cement may be used in paper products, except when the products are to be used in the manufacture of shoes. (Rubber Order R-1, as amended.)

Cellophane

Relaxation of WPB restrictions on the use of cellophane allows dairies bottling 54,000 or fewer bottles a month to use this

PAPER FOR VICTORY

A No. 1 item on everybody's war business checklist is the all-American campaign to save paper.

Practically every one of the 700,000 different items shipped to our fighters overseas is protected by paper. Paper also does an important job in war production, taking the place of even more critical materials. But we are just beginning to learn how critical paper itself is and how much the individual citizen can contribute to victory by a conscientious sacrifice of the ancient American right to luxury in the use of this once abundant commodity.

With paper production beset by manpower shortages, paper-saving is now vital to the maintenance of the supply lines and the essential civilian front.

LOOK SOUTH
LOOK AHEAD



Southern Giant!

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labor...and dependable, economical transportation—the Southern Railway System.

Today, the Southern Railway and the territory it serves have joined hands to speed the coming day of final Victory.

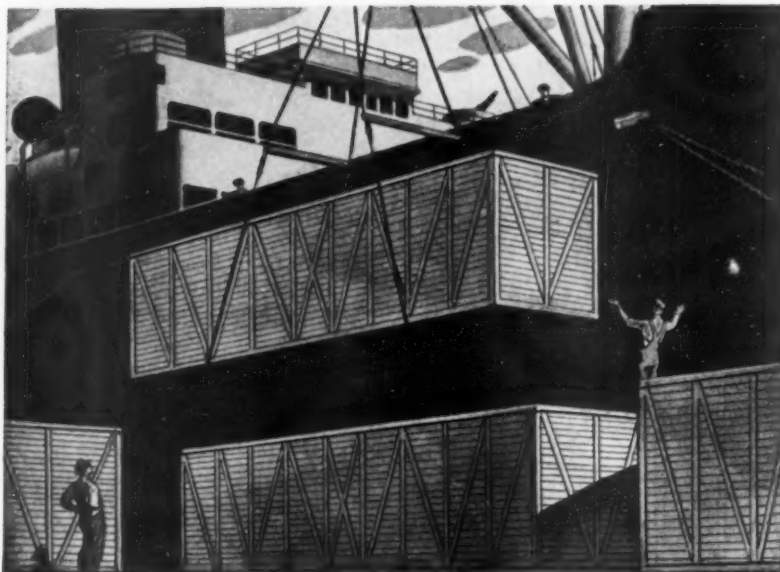
Tomorrow, after the war, they will continue to work together... helping to build a richer, greater Southland... sharing proudly in the development of more Giants of industry, agriculture and commerce.

Look Ahead—Look South!

Ernest E. Harris
President

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The Southern Serves the South



Why not flame-proof the wood that goes into packing cases?

Flame-proofed lumber, used in the cases carrying war materials overseas, would greatly lessen the hazard of fire aboard ships and in storage. Here's insurance against fire for every trip these returnable cases make, at only the slight additional cost of the original treatment for the wood.

Minalith* fire retardant, driven deep into the wood by vacuum-pressure treatment, makes ordinary wood flame-proof. It does not support combustion or spread fire. Structural members retain their high strength without sudden collapse when exposed to flame. This flame-proofed lumber has been widely used in the war effort; for warehouses, blimp hangars, and the like.

Wolmanized Lumber*, the wood that's impregnated with Wolman Salts* preservative, has found even wider use in wartime construction. From U. S. training camp to farthest military outpost, this pressure-treated wood is safeguarding structures against decay and termite attack.

Postwar builders will find both of these types of treated lumber similarly valuable. And all of the usual advantages of building with wood are retained. American Lumber & Treating Company, 1656 McCormick Building, Chicago 4, Illinois.

*Registered trade marks

WOOD THAT'S



FOR SAFETY AND ENDURANCE

AMERICAN LUMBER & TREATING COMPANY

material for milk bottle hoods. To balance this action and the provision permitting use of cellophane in additional rubber products and in packaging specified products, controls are tightened on cellophane used for retail decorative point-of-sale packaging. (Order 120, as amended.)

Wastepaper

Eastern and western members of the wastepaper consuming industry have renewed their agreement to purchase at OPA ceilings all properly processed paper offered to them, subject to cancellation on 30 days' notice. This announcement of WPB's Salvage Division means the extension, for an indefinite period, of the program in effect since Oct. 1, 1943, which was to have expired Feb. 15. The wastepaper salvage goal for 1944 is 8,000,000 tons.

Whisky Dividends

Maximum prices have been established by OPA for all sales of packaged whisky to be distributed to stockholders under the American Distilling Co.'s whisky inventory distribution plan (BW-Jan. 1'44,p98). Prices cover sales to retailers and to wholesalers, with special provision for stockholders who are themselves engaged in the liquor business. Stockholders are warned that they are responsible for observing state and federal laws covering sales.

Home-Slaughtered Hogs

The War Food Administration has extended to Mar. 17 the period during which farmers may, without permit or license, slaughter hogs on the farm and deliver any quantity to persons not living on the property. Ration stamps must be collected for such deliveries.

Coal

Producers' ceilings on anthracite coal will be raised 45¢ a net ton for the month of February, to compensate for added costs resulting from the seven-day week to be maintained during that period. These increases will be passed on to the consumer. On Mar. 1, ceilings will revert to their former levels. (Amendment 17, OPA Regulation 112.)

Trucks

The higher rental rates allowed for dump trucks under OPA Regulation 134 apply only to trucks used primarily in off-the-highway construction or road maintenance work. Other dump-truck rentals are controlled by Regulation 165. (Amendment 14, Regulation 134.)

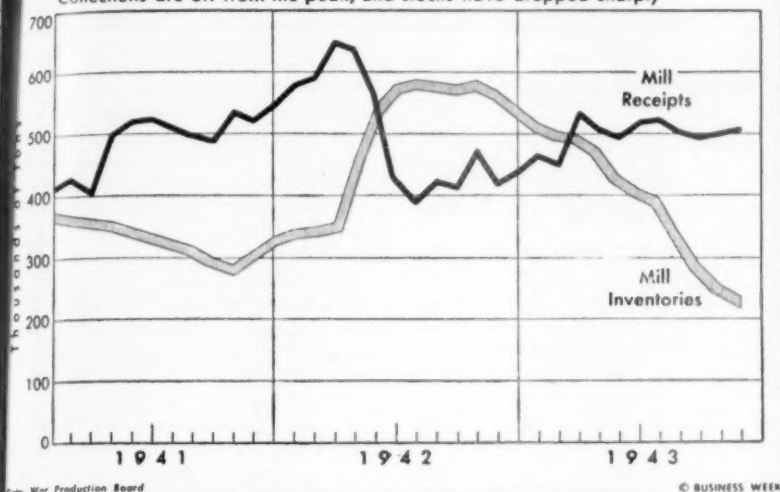
Any expansion of trucking operations must have prior approval of the Office of Defense Transportation, that office warned in prescribing the procedure to gain such approval. (Administrative Order ODT 15.)

Automotive Scrap

To speed the movement of badly needed automotive scrap from the wrecker to the steel mill, WPB has provided that when

THE WHY OF THE WASTEPAPER DRIVE

Collections are off from the peak, and stocks have dropped sharply



Results of the first wastepaper drive may be seen in the sharp upswing in receipts by mills from September, 1941, through April, 1942. Tight-

ness of the over-all paper situation prompted authorities to try it again—hoping to do even better as the earlier drive wasn't pushed very hard.

motor vehicles are not being dismantled promptly enough by an auto wrecker, the board may forbid him to buy more vehicles until he has dismantled a specified number in his yard. (M-311, as amended.)

Steel Valves

A catalog of 30,690 new surplus steel valves of various sizes and types has been published for the use of war contractors and others by the Surplus Program Section of WPB Redistribution Division, in cooperation with Metals Reserve Co. Copies are available for inspection in WPB's regional or district offices and in the offices of claimant agencies. Persons needing steel valves for war use may learn where to get them from the Surplus Program Section, at 155 East 44th St., New York, N. Y. Deals involving valve manufacturers who wish to purchase valves to supply their orders will be carried on through Metals Reserve Co. in Washington.

Tools

WPB has issued a list of types and sizes of files that may be manufactured for export, other than to Canada. These files may be sold only to fill purchase orders for lend-lease, or orders approved by the Foreign Economic Administration. (Amendment to Schedule V, Order L-216.)

Marine Diesel Engines

Purchasers of marine diesel engines for vessels other than those operated by the U. S. and Canadian armed forces and war shipping agencies must get WPB approval before placing their purchase orders, as a result of a WPB action designating those

engines Class Y products. Vessels under jurisdiction of the Coordinator of Fisheries and the Office of Defense Transportation, yards that build or repair ships, and operators of fishing and commercial craft in rivers, harbors, lakes, and coastwise traffic are chiefly affected. (Amendment to Scheduled Products Table for Shipbuilding Div.—Table II—to General Scheduling Order M-293.)

Other Price Actions

Increases of approximately 3¢ per lb. for all sales—except retail—of ginned Spanish moss, used in manufacture of furniture and upholstery (BW—Dec.25'43,p60), are established by Amendment 90, OPA Revised Supplementary Regulation 14, which exempts sales of unginned Spanish moss from price control. . . . Scaffolds and masonry saws have been removed from coverage of General Maximum Price Regulation and placed under Regulation 136—Machines and Parts and Machinery Services—by Amendment 107 to the Regulation. . . . OPA Regulation 509 establishes processors' ceilings for the 1944 pack of canned grapefruit juice, grapefruit segments, orange juice, and blended orange and grapefruit juice; while grapefruit segments are reserved for sale to government agencies, from 50% to 65% of the juices will be available to civilians. . . . Mechanical boat cloth, used in making "Mae Wests" and boats that can be inflated in water, as well as five additional constructions of fine cotton cloth, are given cents-per-yard ceiling prices by Amendment 13, OPA Regulation 11. . . . In line with recent commitments to Boston fishermen, OPA has increased winter maximum prices of sea scallops and lemon sole at fishermen's and wholesale levels, by Amendment 21, Regulation 418.



Stars for Production

For many years the stars on POWELL Valves have symbolized the perfection in design, material and workmanship that has made so many leaders in every branch of industry "ask POWELL for the answer to all their valve requirements."

Since American Industry "went to war", stars have acquired an added significance for Powell. These are the stars awarded to Powell by the Army, Navy and Maritime Commission for "continued meritorious production for victory."

And after victory, POWELL Valves will continue to be "stars for production."

THE WM. POWELL CO.

Dependable Valves Since 1846
CINCINNATI 22, OHIO



Fig. 375—Bronze Gate Valve for 200 pounds W.P. Has screwed ends, union bonnet, inside screw rising stem and a special hard bronze disc.

POWELL VALVES

MARCHANT

First

WITH

SEPARATE ADD AND SUBTRACT BARS

(One of many Marchant "Firsts")



Deliveries according to WPB schedule

The Art of Calculating as advanced by Marchant

Ten years ago, Marchant introduced Separate Add and Subtract Bars... a pair of bars *exclusively* for adding and subtracting. This eliminated the "repeat" key which had plagued operators for a generation.

Instead of having to set and then release a "repeat key" or "add button" every time the operator changes from adding to multiplying, or vice versa, Marchant provides *separate Add and Subtract Bars*.

These are wholly separated from the multiplying mechanism and are used *exclusively* for adding and subtracting. "Separate Add and Subtract Bars" is one of 20 *Points of Superiority* by which Marchant alone brings speed, accuracy and good nature to all calculator work.



Marchant Calculating Machine Company
Home Office: Oakland 8, California, U. S. A.
SALES AGENCIES AND MANUFACTURER'S
SERVICE STATIONS GIVE SERVICE EVERYWHERE

MARKETING

What's My Quota?

That was the question at Chicago's spring market. Buyers got this answer: "No more than last year, probably less."

Last week in a downtown Chicago hotel a pleasant, middle-aged merchant from a small midwestern town and his pleasant, middle-aged wife sat in a dress manufacturer's display room and admired the new spring line. "Pardon me," he murmured to the salesman with a sigh, "I'll have to find out my quota first." Emerging from a huddle with the manufacturer himself, the buyer placed orders for as many "pieces" as he was allowed—roughly equal to last year's purchases.

• **It Was Typical**—That scene was repeated up and down the corridors of the Morrison Hotel, the Palmer House, the Merchandise Mart, and in manufacturers' own establishments. An estimated 16,000 to 18,000 retailers crowded the annual spring market open-

ing, an event which the Chicago Association of Commerce inaugurated 20 years ago with twelve local wholesalers and 175 out-of-town buyers.

Most firms were promising buyers about the same amount of merchandise as last year. Allocations were determined either by dollar volume or by quantities—or, in some cases, apparently by argument.

This was by no means the equivalent of their demands—or even of prewar purchases. One dress manufacturer estimated that customers' potential sales volume of his line was at least 25% to 30% over prewar days. So few firms were taking on new customers (except for an occasional long-desired key account) that the exceptions had to post signs announcing their ability to serve newcomers.

• **Cheering News**—However, manufacturers and buyers did receive some encouraging news during the market. OPA announced that it was relaxing restrictions which forbid manufacturers of women's and children's outer garments to add new lines of apparel at higher prices than those they carried in a specified 1942 base period (BW—



NYLON STAMPEDE

How to start a riot: Put up 2,000 pairs of nylon hose for sale at 79¢ a pair. Netcher's Boston Store in Chicago did just that last week. No one seemed to know where the hose (imperfect) came from, and shoppers, delirious over finding seamless, cotton-

topped nylons in a choice of colors and sizes, cared less. They were interested just in grabbing their quota of two pairs each. The merchandising tempest lasted two hours, leaving a crew of exhausted sales girls, the floor littered with ripped-off heels, and a shopper angrily reporting the mysterious loss of her girdle.

Feb. 5 '44, p. 74). Thus, the output of inexpensive apparel will be encouraged by permitting somewhat better quality items.

But buyers at Chicago didn't do so readily, except in low-priced lines, which have practically disappeared (BW—Jan. 5 '44, p. 27). Merchants had an understandable tendency to order more than they expected to get, where permitted. As a woman buyer for a Greenville (Ohio) dress shop explained, "You never know what you'll get till it's delivered." Conceding the difficulty of getting exactly what she wanted to buy, she nevertheless summed up the average buyer's position: "Anything will sell."

A Nervous Market—The market was pervaded by a state of what one resident buyer, Robert Donahue of the Nat. Garment organization, characterized as "nervousness." Buyers were less inclined to buy blindly this year than last, more insistent on staple merchandise, less interested in substitutes.

To a large extent, this reflects the attitude of their customers, who feel that the course of the war may permit release of critical materials for civilian use at any moment. Classic example is women's lingerie without elastic: The public doesn't want it, buyers are fearful of being stuck with it, manufacturers don't know when they will be able to provide anything else.

More Exhibitors—Except for acute shortages in such items as children's underwear, buyers of women's and children's clothes probably had the easiest time of it; there were 15% more exhibitors of these lines this year than last. At that, buyers could count themselves lucky to get 100% of last year's purchases. Pure cotton dresses are conspicuously scarce, and prewar retail prices of \$3.95 have soared to \$5.95 or even \$7.95.

One exhibitor remarked grimly, "If buyers don't get theirs within the next 50 days, they won't get any."

Rayon sheers are few, but spun rayons are relatively plentiful. Prints are plentiful because of the wide variation among different manufacturers' price ceilings on prints, compared with relative standardization of ceilings on plain colored materials.

Most manufacturers had pruned their lines drastically: One who offered 200 styles in 1941 showed only 30 this year; another with a prewar line of 75 styles showed only twelve. Women's rayon crepe dresses and rayon jerseys are fairly plentiful, but delivery often requires 60 days to four months.

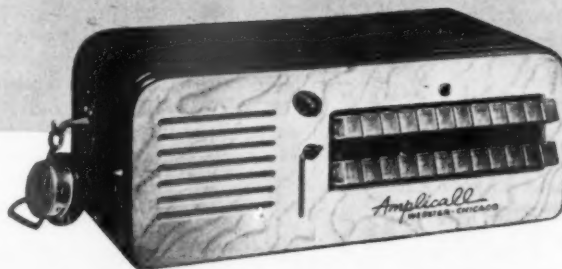
Blouse Shortage—Cotton blouses are few, expensive, and uncertain. For example, some buyers who ordered a broadcloth blouse to retail at \$2 last fall finally received the item made in cheap,

SPLIT-SECOND

CONTACT*

*** just another way of saying**

AMPLICALL



... finest name in communications for industry

Instant contacts are the "life pulsations" of modern business... since getting to the right man *at the right moment* may make a sizable difference in plant efficiency. Providing for these *instant contacts* that *erase distance* is the reason why **AMPLICALL** Paging and Two-Way Communications Systems are in constant use by thousands of America's small, medium and large industrial plants. There is a **RAULAND** Sound System of a design and capacity to meet perfectly your every need. Let us give you all details.

HERE ARE SOME OF AMPLICALL'S MULTIPLE USES:

Locates Instantly • Saves Precious Time • Saves Countless Steps
Relieves Switchboard Congestions • Provides Split-Second Safety
Protection • Increases Production Through Musical Programs



SMALL PLANT



MEDIUM PLANT



LARGE PLANT

Regardless of your plant size you'll find an **AMPLICALL** System to meet *all* of your present needs... yet flexible enough to serve in the event of plant expansion.

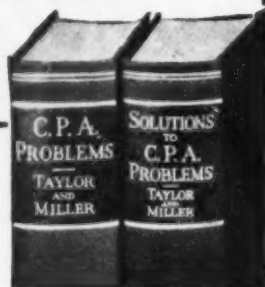
Electronceering is our business

Rauland

RADIO...SOUND...COMMUNICATIONS

Rauland employees are still investing 10% of their salaries in War Bonds
The Rauland Corporation... Chicago, Illinois

**Prepare to pass
C.P.A. Examinations
this practical
direct
way**



THESE books give you the confidence of thorough familiarity with actual C.P.A. problems and questions. Here are 236 Accounting Problems, 254 questions on Accounting Theory, 174 queries on Auditing Theory and Procedure—with Solutions to the Problems, carefully worked out in accordance with accepted principles and practice.

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Professors of Accounting Ohio State University

These problems and questions have been judiciously selected from those actually propounded in state and A.I.A. examinations throughout the country. They cover a wide range of points and topics from preparation of statements down to specialized accounting situations met in consignment, branch, retail, installment, bank, real estate, and fiduciary work.

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2 BIG VOLUMES. Second edition, 1221 pages, 6 x 9, per set \$10.00. EASY PAYMENTS. See books on approval; pay \$1.00 in 10 days and \$3.00 monthly for 3 months if you keep them.

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McGraw-Hill Book Co., 330 W. 42 St., N. Y. C. 18
Send me Taylor and Miller's C.P.A. Problems and Solutions to C.P.A. Problems, 2 vols., for 10 days' examination on approval. In 10 days I will send \$1.00, plus few cents postage, and \$3.00 monthly for 3 months, or return books postpaid. (Postage paid on orders accompanied by remittance of first installment.)

Name

Address

City and State

Position

Company BW, 2-12-44

sheer cotton. One firm's cheapest rayon blouse is now \$2.29 (retail), compared with \$1.95 before the war. The same supplier mourned that he could sell customers only about a dozen blouses each, compared with the five or six dozen they usually bought. Sales of dickies, scarves, and other neckwear are booming, since they double for blouses but require less materials and labor. Misses' skirts of wool and cotton mixed, which used to retail at \$1.98, are now \$2.98.

Manufacturers of women's clothing blew both hot and cold as to the available supplies of woolen fabrics. Some are well supplied; others point out that the country's ample store of raw wool is no good to them because spinners and fabric mills are a bottleneck. The big question is whether the garment maker's chief suppliers are tied up with government orders. Generally speaking, buyers obtained about as much women's clothing as last year.

• **Staggering Blow**—The same rule prevailed in women's underwear, except, of course, in low-priced lines. Corset manufacturers showed garments whose rubber content varied directly as their inventories. Just before the spring market, the Army dealt this industry a staggering blow by suddenly stepping up its requirements for Neoprene—the particular synthetic rubber which corset makers had succeeded in adapting for their use. Now they must start over again with Buna-S (BW—Feb. 5'44, p89).

The war has dealt less harshly with millinery, for, as one wholesaler put it, "You can make a woman's hat out of almost anything." Nevertheless, fur for felts is usually imported from Europe and Australia, and manpower makes even domestic wool felts harder to get. An official of Gage Brothers Co. pointed out that shortages of felt hats will be most acute in the \$5 to \$15 (retail) class. The best straws normally come from Switzerland, with straw bodies for cheaper hats imported from Italy, China, and Japan. Coconut straw, native to this hemisphere, will continue to double for imported straws.

• **Shortage in Cottons**—Major headache for buyers at this show was the general scarcity of children's low-priced clothing, because cotton and woolen yarn are short. Makers of low-priced children's pants, forced to use buttons instead of elastic, found that their low ceilings didn't permit the added production cost. This throws the business to makers of medium- to high-priced items, who have a correspondingly safer profit cushion. A house like the William Carter Co. is managing to give buyers as much of even these short lines as they purchased last year, quarter by quarter, by eliminating from their line less essential items.

At the annual Chicago men's and



SINK OF GLASS

While wartime regulations restrict critical materials in plumbing fixtures, a new kitchen sink unit of glass and clay is being prepared for market. This unit, containing only 2 lb. of metal, is the joint development of Libbey-Owens-Ford Co. and a Bridgeport (Conn.) housing project manager who built the first model (above). Its drain-board and cabinet stand is made of the firm's "Vitrolite" heat-tempered glass; the dual tubs are made of clay. Several concerns are reportedly interested in getting the sink into mass-production this spring.

boys' apparel shows, which overlapped the spring market opening, men's woolen clothing was sold strictly on allotment, but the most serious shortages were in cotton garments.

• **Fewer Styles**—One manufacturer who is allotting regular customers 70% of their 1943 purchases pointed out that instead of his prewar line of men's pajamas in ten prices, with three or four styles at each price, he now has only four prices of two styles each—with these representing the upper section of the previous price range.

At least four manufacturers discontinued making union suits for the duration when they found their wholesale ceiling price of \$7.02 per dozen represented a loss. Buyers of boys' wear are getting only 75% of their 1943 purchases, which were only 75% of 1942.

• **Tight Allotments**—Buyers of men's hose are being allotted 65% to 75% of their last year's purchases, or only 50% in the cheaper grades. Some accounts



MEET YOUR NEW NEIGHBOR . . .

Everyone knows that the world is growing smaller through the development of Science and Industry—the War is a grim reminder of this fact . . . but when the job of war is done and the Peace is won the world will become a *Neighborhood of Nations*—working and living together for their mutual betterment.

Radio will serve the world in a measure far greater than ever before—for pleasure, education, safety and convenience of *all mankind!*

Look to *Hallicrafters*—they are planning ahead **TODAY** for *your* radio **TOMORROW**—plans born of wartime manufacturing experience and engineering developments.

hallicrafters RADIO

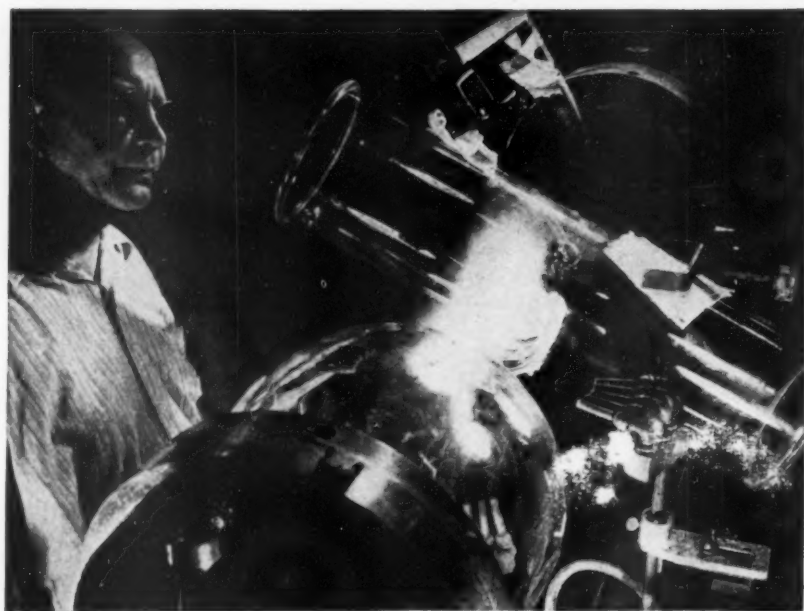
THE ALL OUT EFFORT of the people of Hallicrafters has won for them the honor of being the 1st exclusive Radio manufacturer to win the Army-Navy Production Award for the 3rd time . . . FIFTY MILLION DOLLARS worth of war research and developments will be built into your next Hallicrafters Radiol



BUY MORE BONDS!

THE HALLICRAFTERS CO., MANUFACTURERS OF RADIO
AND ELECTRONIC EQUIPMENT, CHICAGO 16, U. S. A.

Outfitting another exploration into emptiness



DPI glassblower fashions parts for high-vacuum equipment. Torkel Korling photograph.

HAVE YOU explored the world of high-vacuum and its possibilities for your business?

Many a corporation has found that processing in high-vacuum is both useful and profitable. And many of these organizations turn to DPI for efficient, dependable high-vacuum equipment.

It may seem odd that DPI, known in the foods and pharmaceuticals fields as a leading supplier of vitamin A and vitamin E concentrates, is

also a leading supplier of high-vacuum equipment — pumps, gauges, oil, and the like—to industry.

But remember this: our vitamin concentrates are superior because they are distilled in high-vacuum. We use our own high-vacuum equipment, most of it originated and developed in our own laboratories. And we are our own severest critic.

We are eager to be of service to you.



Distillation Products, Inc.

Pioneering High-Vacuum Research

755 Ridge Road West, Rochester 13, New York

Jointly owned by EASTMAN KODAK CO. and GENERAL MILLS, INC.

*"Headquarters for Oil-Soluble-Vitamins
and High Vacuum Equipment"*

that buy high-priced hose only are able to get 100% of 1943, but even they can't get the top-quality imported woolen and lisle patterns that used to sell at \$3 a pair.

Men's prospects for spring hats are less rosy than women's, with few, if any, fur felts. Although most buyers place their orders for felts in August, they supplement their stock at this market.

"Straw won't be straw," moaned one hatter. They'll be made of cotton braids and synthetic fibers, except for panamas which are coming in from Central and South America (BW-Dec. 25'43, p53).

• **Gifts Are Scarce**—In the gift shows, buyers found only two types of teddy bears instead of the usual ten—and these were speechless. Picture frames are harder to get because of shortages of leather, metal, and even plain glass. Jewelry is plastic, wooden, shell, or "novelty." Earrings are the most plentiful jewelry item this year.

Despite a 50% reduction in patterns, buyers found some glassware manufacturers' entire 1944 output already sold, and got no encouragement for placing orders for 1945 delivery. Most firms are five to ten months behind on deliveries in blown and cut glass.

• **Compensating Items**—In the Chicago Merchandise Fair (5¢ to \$1 items), goods like bibles with gold-plated steel covers ("To protect your soldier's heart") helped compensate for the lack of staple merchandise.

High point in salesmanship was reached by a manufacturer of "Pedees" (which protect stockingless feminine feet from contact with shoe leather) who proclaimed they contained positively "no elastic to cut or bind!"

Added Research

Radio listening habits of nation to be studied on broader basis. Two agencies to expand coincidental checking methods.

When Danton Walker, New York Daily News columnist, last month let readers in on a tip that "the two national radio research outfits, Crossley and Hooper, are due for a merger," the advertising world was skeptical. Those in the know were frankly disbelieving.

• **Duplicated Dollars**—But they could hope. Clients of both research organizations—advertisers, advertising agencies, radio stations, and networks—depend on them for invaluable data on radio listening habits, the statistics on which programs are bought and sold. Continuous reports on program popularity, obtained

by sampling, reveal how many listeners a given program has and when.

A lot of subscribers pay for both services, and that involves thousands of duplicated dollars; hence the long standing demand for one authority.

• **Strictly Competitive**—Almost simultaneous announcements last week by both agencies of expanded research activities and new subscriber services, however, made it emphatically clear that the two organizations still were not only separate, but also definitely competitive.

But this was evident a couple of months earlier when the Cooperative Analysis of Broadcasting—nonprofit organization governed jointly by the American Assn. of Advertising Agencies and the Assn. of National Advertisers—asked for competitive bids on an amplified radio research program. Obviously, whatever merger maneuvers there had been antedated that call for bids.

Presumably only two bids were received, since Crossley, Inc., and C. E. Hooper, Inc., are the only agencies equipped to handle big-scale nationwide radio research, now growing fast into a million-dollar business. The contract went to Crossley.

• **First Time to Bid**—Crossley has always done C.A.B.'s research, although it never had to bid in direct competition. The tieup was just a matter of historical precedent. Almost since its inception, C.A.B. has been synonymous with Crossley, Inc., in radio research.

It all began in 1929 when eight members of the A. N. A. individually contracted with Archibald M. Crossley to test their radio programs for them. That led to a cooperative project, and soon Crossley began to check not just his clients' broadcasts but network program listening generally.

Other advertisers, members of the association, began to join the list of Crossley sponsors, and in the early thirties, to prevent Crossley's findings from being used for competitive sales promotion purposes by broadcasters, a C.A.B. governing committee of A. N. A. members literally took over Crossley's continuous study, lock, stock, and barrel.

• **Use Is Restricted**—Almost at the inception of what later were called "Crossley Reports," the survey results were made available to advertising agencies, and the agencies, which now pay the bulk of Crossley's fees, were given equal voice in governing C.A.B. Still later, the reports were offered to broadcasters but with specific restrictions on the use of the findings in competitive selling.

Thus, unlike the other media studies which are conducted by advertisers and agencies through the Advertising Research Foundation, the medium contributes very little to the cost of the radio research program—though it will

SEND FOR THIS BOOKLET

Get valuable facts about
a new, improved, finishing
method!



PORTER-CABLE

Wet-Belt SURFACING

- speeds output.
- reduces rejects.
- cuts scrap losses.
- saves re-working.

Porter-Cable's modern abrasive Wet-Belt surfacing method automatically eliminates many problems bothering your shop men. It banishes the production hold-ups and higher costs that trace back to finishing faults—such as fracturing, warping, discoloration, flow, toolmarks. That's because Wet-Belt surfacing does away with frictional heat. With both material and abrasive belt cool, belt speed can be greatly stepped up, and in consequence, new peaks of cutting efficiency become possible. Wet-Belt surfacing is actually 5 to 25 times faster than previous finishing methods.

And the work is accurate, too... within .0005" where required. With Wet-Belt surfacing, even inexperienced operators can do precision work from the start, and with equal ease on steel, brass, aluminum, magnesium, plastics.

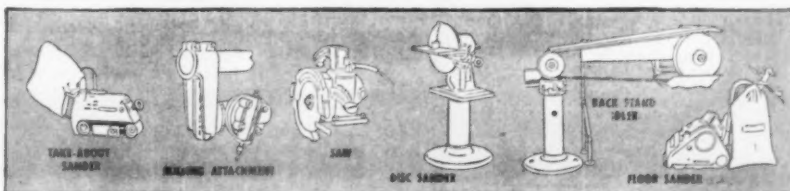
More efficient machining methods are a vital part of post-war production planning. Get all the facts about Wet-Belt surfacing now. Send for our new booklet, "A New Precision Machining Method." Please state title and company when asking for it.



For numerous industrial applications, Porter-Cable manufactures a variety of electric tools.

PORTER-CABLE

MACHINE CO., 2030-2 N. Salina St., Syracuse, N. Y.



FS-40 for
40-watt lamps



FS-100 for
100-watt lamps

**Reduce Spoilage
with G-E**

Watch Dog
REG. U.S. PAT. OFF.

STARTERS

Is spoilage in your plant becoming a problem? Then check the condition of your lighting system. Blinking and flickering of dying fluorescent lamps irritate war workers, impair the quality of their workmanship and retard production. Today that's serious! Why tolerate such undesirable lighting conditions? You can banish annoying blink immediately and permanently by switching to the G-E Watch Dog Fluorescent Starters. Here's what happens:

When a lamp reaches the end of its useful life, blinking and flickering commence but the Watch Dog stops 'em cold! This manual reset starter cuts itself out of the circuit immediately by eliminating all flow of current.



This catalog will tell you how to use fluorescent accessories for best lighting results. You can obtain your copy by writing to Section G241-102 Appliance and Merchandise Department, General Electric Co., Bridgeport, Conn.

GENERAL ELECTRIC

now pay almost a third of the expanded C.A.B. service. In the case of outdoor advertising, car card, and newspaper research, the media virtually underwrite the studies.

When the major features of C.A.B.'s immediate expansion were announced last week, A. W. Lehman, manager, emphasized that activities to be added in the next few months are merely steps in C.A.B.'s long-pull plans to furnish a program rating service representing a "true cross-section of American homes."

Heretofore, national radio research has depended on sampling urban populations, and has been limited to homes which could be reached by telephone.

• **To Check More Cities**—C.A.B. plans, once the war economy releases necessary manpower and gasoline, to check on farm population and nontelephone urban homes to complete the cross-section. Until then, C.A.B. will be content to expand investigations from 33 to 81 cities, and triple the number of telephone dialings to bring the total to 6,300,000 a year.

Biggest eye-catcher for advertising circles in the C.A.B. plans was the revelation that it will drop temporarily the recall technique—a system of checking to see what programs listeners remembered a few hours later—in favor of exclusive use of the coincidental method. Coincidental is the method in which researchers call listeners during the time a given program is being broadcast to ask, "Are you listening?"

• **Which Is Better?**—Advertisers and research men have long argued about the superiority of one method over the other. But advocates of coincidental—including C. E. Hooper, who has employed the technique continuously since 1934—consider C.A.B.'s decision a major victory since Crossley has tested coincidental and recall side by side for the past year and a half.

Hence, the coincidental method seems to be nominated as the standard yardstick. But, necessarily, it will bear checking by the recall method when C.A.B. begins reporting nontelephone homes.

Among additional announcements by C.A.B. were forthcoming bimonthly reports on sponsor identification ratings, based on a new and improved method; and composition of audience reports by broad classifications of age and sex.

• **Hooper's Expansion**—Hooper's new services, as announced last week, cater more to broadcasters, which account for 48% of his business, than C.A.B.'s program, since the latter serves a higher proportion of agencies and advertisers.

Additions to Hooper's service include:

(1) A report on listening habits city by city to be issued three times a year to supplement monthly reports on the 32-city average.

Reason for this, Hooper points out, is that while the "Hoopering," or average, for a typical program may be between 7% and 8%, it will vary from 2.5% in Chicago to 13.9% in Pittsburgh.

(2) Separate network ratings designed to measure the performance of each chain on its home ground. Thus, NBC programs will be checked in representative cities where NBC has outlets, CBS in Columbia towns, and so on. Many cities with network outlets—particularly Mutual stations—aren't covered in the basic Hooper reports.

(3) Expansion of service in areas having fewer than four radio stations. (Originally both C.A.B. and Hooper set up investigations in cities having affiliates of all four major networks.) According to Hooper, only 62.8% of the country's urban population lives in cities which have four or more radio stations; hence he is expanding his sample so that findings can be projected to represent all of the 52,748,999 Americans who live in cities over 25,000 population.

• **No Surprise**—Simultaneous announcement of expansion of both radio research services came as no surprise to the trade, for competition between the two organizations has been touch-and-go in the last few years. Hooper entered the field almost a decade ago. At that time, Hooper was associated with L. M. Clark in Clark-Hooper, Inc., which specialized primarily in magazine readership research. Hooper got interested in radio when he was approached by a small group of big magazine publishers and asked to do a study of the new and bumptious advertising medium, which would set it back on its heels. Trade gossip has forgotten the impact of the report on the magazine publishers. However, Hooper switched his allegiance to radio, permanently. A few years later he established C. E. Hooper, Inc.

• **The Audimeter**—Hooper and Crossley shared the national radio research field alone until A. C. Nielsen came along with his audimeter in 1939. Since a complicated mechanical device in every tested home is requisite to Nielsen's system, the war and its priorities on critical materials have halted expansion at about 800 homes, thus delaying the potential competitive inroads which Nielsen's audimeter threatened before the war (BW—Dec. 7 '40, p38).

MARSHALL FIELD STICKS

Anyone who thinks that Marshall Field will weary of losing money and retire from the publishing business has two reasons for reorienting his thinking.

First evidence that the angel of New York's PM and the Chicago Sun isn't losing interest in his newspapers was Field's own statement last week that negotiations were nearly completed for purchase of almost an entire city block just west of Chicago's Loop. The site—from Madison St. to Monroe

... and from Market St. to the river—
will serve as the new location for Field's
Chicago newspaper plant as soon as
wartime restrictions on civilian con-
struction are lifted.

This week, Field was equally em-
phatic in expanding his personal partici-
pation in the publishing enterprise.
When Silliman Evans, owner and pub-
lisher of the Nashville Tennessean and
publisher of the Chicago Sun, resigned
from the latter, the Sun announced that
he would be succeeded by Marshall
Field, editor and owner.

Stores to Merge

Bullock's, Pacific Coast retail
store, joins I. Magnin's high-
fashion California group, subject
to stockholders' vote.

Formation of one of the nation's
largest department store organizations
will result from merger of Bullock's of
Los Angeles (four stores) and I. Magnin &
Co. of San Francisco (nine stores).
The new concern, dominated by Bul-
lock's, will have an annual volume of
about \$65,000,000.

• **Bullock's Had Volume**—P. G. Win-
nett, president of Bullock's, is credited
with conceiving and completing the
deal, which is subject to approval of
stockholders. Advantages to Bullock's
lie in the store outlets it will get and the
added prestige Bullock's should gain
from Magnin's position as a high-style
house.

The immediate increase of volume
for Bullock's is not great. In the last
year for which figures are available
(1942), Bullock's volume amounted to
more than 70% of the combined total
of the two concerns.

Magnin's nine specialty-type stores
are in San Francisco, Seattle, Los
Angeles, Pasadena, Beverly Hills, Santa
Barbara, Oakland, Del Monte, and
Coronado.

• **Stock 3 1/2 to 1**—The "I" in Magnin's
firm name stands for Isaac, founder in
1876 of the first Magnin store in San
Francisco. However, in the West Coast
merchandising field, it is understood
the enterprise was expanded largely
by Mary Ann Magnin, the enterprising
widow of Isaac, who was 95 when she
died last December.

Mrs. Magnin operated the chain
until 40 years ago when she turned
over active control to her sons, E.
John Magnin, who makes his head-
quarters in New York, and Grover A.
Magnin in San Francisco.

Basis of the consolidation is under-
stood to be 3 1/2 shares of I. Magnin

WE REPEAT . . .

In Many Cases, It's Cheaper To Generate
Your Own Electric Power Than To Buy It.

HERE'S PROOF . . .

DURING the past few months the
accompanying advertisements
have appeared in various technical
publications. These have shown some
of the many industrial plants and insti-
tutions in which large savings have
been made, in comparison with the
cost of purchased power, by generat-
ing electric power with "Universal
Unaflo" steam engines, and utilizing
the exhaust steam for building heating
or process purposes.

If you are now purchasing power
and are using low pressure steam,
during the heating season or the year
'round, for building heat or processing,
consult with us. We can undoubtedly
cite similar cases in your particular
industry where Skinner "Universal
Unaflo" engines have paid for them-
selves out of savings. Our Research
and Engineering Departments are
available now to discuss your power
costs for the future.



Some Users of "UNIVERSAL UNAFLO" Engines

Hotels, Clubs	Leather Products
Schools and Colleges	Furniture &
Hospitals, Homes	Woodworking
Public Institutions	Printing, Publishing
Department Stores	Paper, Paperboard
Office Buildings	Laundries,
Railroads	Cleaners
Meat Packing	Oil Refineries
Dairies	Stone and Brick
Breweries	Gas Plants
Food Products	Municipal Water &
Ice & Cold Storage	Electric Plants
Mining	Cotton Oil Mills, Gins
Chemical, Ordnance	Rubber
Drugs and Soaps	Glass
Machinery Mfrs.	Bakeries
Textiles	Tobacco



Back The Attack
Buy War Bonds

For Over 75 Years, Doing One Thing Well—Building Steam Engines
SKINNER ENGINE COMPANY ERIE, PA.

WHEN WAR STRUCK THIS COUNTRY, time was an Axis ally. We strove desperately to convert our industry in time . . . to produce and deliver the vitally needed planes, tanks and ships in time . . . to build vast new armies and navies in time. We had to do in *months* what took the Axis *years*.

TIME FIGHTS ON WHOSE SIDE?



Today, time fights on *our* side. For out of the emergency of war, we learned the importance of new materials and methods—*new ways of getting things done in time*.

Such is the Dictaphone method, and certain it is that all those war plant executives, Government officials and officers of the armed services, who now rely upon Dictaphone dictation to push work through *fast*, are never going to be content to go back to slower methods after the war is won. Then, more than ever, business executives will need the convenience and time-saving economy of the Dictaphone Method.

To all business, Dictaphone will bring new war-proved developments, including Dictaphone Electronic Dictation which extends the time for executive planning and provides new safeguards against the delays, errors, oversights and time-waste fostered by old-fashioned, two-person dictation.

If you would like to have time working on *your* side, visit your local Dictaphone office and become acquainted with these new Dictaphone achievements.

Dictaphone Corporation, 420 Lexington Avenue, New York 17, N. Y.



DICTAPHONE
DICTATING AND RECORDING EQUIPMENT

The word DICTAPHONE is the registered trade-mark of Dictaphone Corporation, makers of dictating machines and other sound recording and reproducing equipment bearing said trade-mark.

DICTAPHONES AVAILABLE!
Dictaphone equipment is available to firms whose work is "essential."

common for each share of Bullock's common. About 73,556 additional shares of common would be issued by Bullock's in exchange for the 25,447 shares of I. Magnin and I. Magnin & Co. common.

• **Identities Retained**—It was understood the stores of the two firms would retain their separate identities and that operation of the I. Magnin & Co. offices in New York City would not be affected.

Although Bullock's caters to an upper middle class clientele, it has a volume business dependent upon good merchandising and buying techniques for its success. The Los Angeles store is the largest there, and shares with the Emporium-Capwell Co. of San Francisco and Oakland the department store leadership on the West Coast.

Their War Role

Utensil company's plan to keep sales force intact hit a snag, but most of the salesmen took shop jobs for the duration.

The attempt of the Aluminum Cooking Utensil Co. to keep its direct-to-consumer sales force in trim by selling silverware to housewives while aluminum went to war hasn't panned out, and the company will have to retrieve most of its salesmen from production jobs when aluminum kettles again are put on the civilian market.

• **Started in 1941**—The company's program to keep its door-to-door canvassers at work by substituting silverware instead of aluminumware in their sales kit was conceived in 1941, when defense needs cut civilian supplies and brought bleak days for many salesmen (BW-Sep. 20 '41, p. 31).

But the arrangement proved to be only a stopgap, for the shift from defense to war production after Pearl Harbor rapidly changed the picture. Most of the company's salesmen were placed in production jobs at plants of the Aluminum Co. of America, its parent company.

Another factor that worked against success for the experiment was that silver was finding a greater place in the war effort, thus reducing the amount of silverware. When this commodity was chosen as a substitute sales line, such things as price, quality, appeal to housewives, and availability of the metal were considered.

• **Not a Fair Test**—If the silver supplies had been more plentiful, company officials feel a fairer test could have been made of the program. But again

confronted by a supply difficulty, the company emphasized transferring the salesmen to production jobs in Alcoa plants. The substitute sales program is just coasting along, with the force of several thousand full-time salesmen having dwindled to a smaller group of part-time workers, most of them women.

With aluminum production now exceeding war needs, thus allowing some of the metal to be diverted to civilian use, the company hopes that it can have its salesmen released from war production work when it is possible to bring aluminum pots and pans again to the housewife's doorstep for sale.

To Produce Tubes—The first civilian aluminum item to be produced by Alcoa is the collapsible tube for toothpaste. Without diverting manpower from essential war production, the tubes are being manufactured at Alcoa's Edgewater (N.J.) works.

Not Too Optimistic—Its New Kensington (Pa.) plant is still producing war materials, but the utensil company has requested permission of WPB's Office of Civilian Requirements to make a limited line of cooking utensils for civilian use. Because government officials are reluctant to give a green light to civilian production until victory over Germany is nearer, company officials are not too optimistic about resumption of aluminumware production in the immediate future.

Agencies Agree

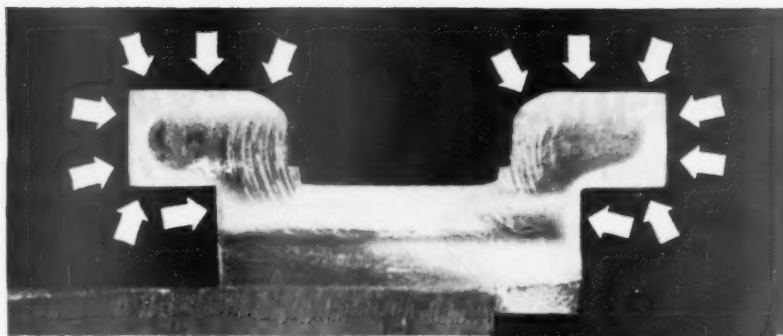
FCC and WPB in accord on dividing radio plant control, but their present harmony has a shaky foundation.

More than two years of rivalry between the Federal Communications Commission and the War Production Board over control of the nation's physical radio broadcasting plant has culminated in an agreement divvying up authority.

Conditional Grant—Under this agreement, FCC may give applicants for new or expanded radio facilities a conditional grant, which will become a construction permit only after WPB has approved the necessary expenditure of materials and manpower.

Although it can't be proved in black and white, there is little doubt that the agreement results, at least in part, from FCC's recent action in licensing station KWBU in Corpus Christi, Tex., over the heated protests of WPB's Radio & Radar Division (BW—Dec. 11 '43, p82).

Political Motive?—KWBU was the first new radio station to be licensed in



Bearing surfaces of wear-resisting Ampco Metal cost less..

- with welded overlays of Ampco-Trode

Welding — the fabricating method which has made such tremendous strides in war production — offers you an economical means of building up surfaces that resist wear, shock, and corrosion.

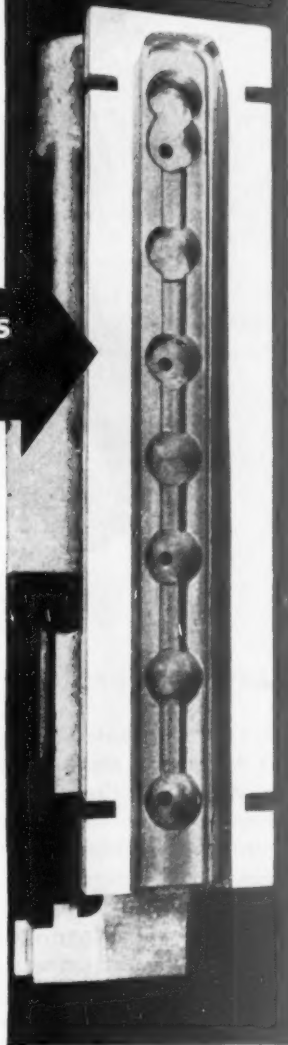
With Ampco-Trode, you can overlay less costly base metals with the same high-quality aluminum bronze which has found such wide acceptance in the form of castings and wrought products as Ampco Metal. Any grade of Ampco-Trode — selected for your required physical properties — can be welded to almost all metals and their alloys.

From giant marine propellers to the smaller machine parts or valve seats, you can apply aluminum bronze where needed. (Illustrated: gun slide overlaid with Ampco-Trode on bearing surfaces.)

Your questions on specific applications will be gladly answered by the nearest Ampco field engineer. Don't delay — call or write today.

Write for Ampco-Trode catalog.

W-1



Tear out and mail coupon today!



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The Metal without an Equal

Reg. U. S. Pat. Off.

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Ampco Grades 12 to 22 (special alloys of the aluminum bronze class) . . . Ampcolor (general industrial bronzes) . . . Special Custom Copper base alloys.

Sand Castings . . . Centrifugal Castings . . . Extruded and other Wrought Products . . . Precision-machined Parts . . . Ampco-Trode (coated welding electrode) . . . Ampco Non-Sparking Safety Tools

Ampco Metal, Inc., Dept. BW-2 Milwaukee 4, Wis.

Please send Ampco-Trode Bulletin with information on wear-resisting welded overlays of Ampco Metal.

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Company _____
Address _____
City _____ State _____

DUMB DORA MAY BURN DOWN YOUR PLANT!



Unless you protect oily floors with **SPEEDI-DRI**

There's one (or more) in every Plant. Rules or no rules, some Dumb Doras will sneak smokes and drop matches or butts on oil-soaked waste, rags and other inflammable absorbents. You can foil these "unconscious saboteurs" by spreading **SPEEDI-DRI**, the famous oil- and grease-absorbent on *all* oily floors. It works fast. It's economical. It retards fire, even when oil soaked (just ask your insurance company about that!). What's more, it sets up an immediate non-skid surface preventing many a falling and slipping accident—a major cause of industrial casualties. **SPEEDI-DRI** will brighten your plant, improve morale, speed production, and save vital manpower by freeing porter labor for more important jobs. Write for literature and **FREE SAMPLE**.

SUPPLIERS: East—Refiners Lubricating Co., New York 1, New York.
Midwest & South—Waverly Petroleum Products Co., Philadelphia 6, Pa.
West Coast—Waverly Petroleum Products Co., Russ Bldg., San Francisco 4, Calif.

SPEEDI-DRI
OIL AND GREASE ABSORBENT



the U. S. in nearly two years—ever since FCC announced, in February of 1942, that it would not issue any permits for the construction of new broadcasting facilities, or for the extension of old facilities, where this might involve a drain on manpower or facilities (BW—Feb. 7 '42, p. 59).

FCC's argument for licensing KWBU was that all major equipment was moved from Reynosa, Mexico, where the station's principal backer, Carr Collins, owned station XEAW.

But WPB—and the radio industry—felt that FCC had more than blinked at its own policies in licensing KWBU. The Radio & Radar Division also believes that in its opposition to the deal it had the silent support of some elements in FCC—particularly the commission's engineering division. The dark suspicion was that FCC's action was politically motivated.

• **Still Looking**—WPB was not able to block the debut of KWBU (partly because the Radio & Radar Division was crossed up, not only by FCC, but also by other elements in WPB itself—notably the Power Division which granted KWBU a priority on electric cables), but the new agreement with FCC will block a repetition of this performance. WPB's Compliance Division is still hot on KWBU's trail, looking for possible circumvention of its restrictions.

The FCC-WPB agreement appears to be a modification of the commission's freeze policy, in that FCC is now prepared to entertain applications for new or expanded facilities where these are in the public or war interest. Since the original freeze, FCC has dismissed, without prejudice, some 300 applications for new construction.

In WPB, however, opinion is that the freeze will be thawed little, if at all. Military requirements for radio and radar equipment are 51% greater this year than last. FCC is anxious to start lining up applications now so that it won't be engulfed in a flood of requests for new licenses the minute the war is over.

• **Minor Triumph**—The new agreement represents a minor triumph for WPB, whose struggles with FCC extend back to the early days of the war. Apparently the construction agreement has not increased their rapport on other matters. Last week FCC handed down a proposed order which would compel the permanent recording of all national and regional network programs by their stations of origin; hearings are scheduled for next week. Although this might involve a considerable expenditure of critical materials, WPB's Radio & Radar Division was not consulted, and heard about the order only when it appeared in a press release.



We'll help you pay those bills

...bills for new quarters if fire forces you out of your home. Bills for repairing or rebuilding. Bills for refurnishing.

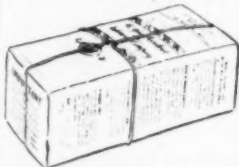
...bills for food, fuel and other necessities if a disabling accident stops you from working and earning. And your hospital, doctor and nursing bills, too!

...bills for replacing jewelry, silverware, clothing, furs and other valuables that burglars or anyone else may steal.

All these and many more of the costs of misfortune—bills that otherwise would fall entirely upon you—can be provided for by carrying Hartford Insurance.

What is the "package" idea of protection?

Today's trend in insurance is to "package" more complete protection in fewer policies—frequently at lower cost. For instance, the Hartford Comprehensive Personal Liability Policy ends your worries about damage claims and lawsuits resulting from accidents on your home premises, or due to your ownership of dogs or horses, or participation in sports such as hunting, fishing, cycling, or golf, or caused by other personal activities. It likewise covers your wife and minor children, and other relatives under 21 living with you.



Don't let this risk wreck your business

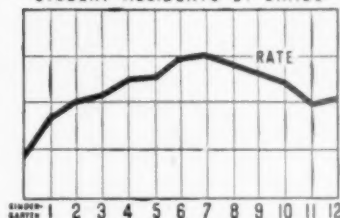
The worker who steals often shows great ingenuity in concealing the fact. As a result, before the loss is discovered it may be so large as to bankrupt his employer. Wise business men avoid this risk. They protect themselves through "blanket" Fidelity Bonds, covering all employees.



If your children go to school

This chart will interest you and them. While the accident frequency rate rises to a peak at the seventh grade, it is of utmost importance that they learn safe habits during their early school life. Safety is most important in every grade.

STUDENT ACCIDENTS BY GRADE

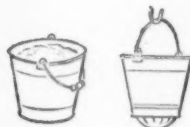


Published with permission of National Safety Council



Gas rationing hasn't ended this risk

You are using your car less but still you run the risk of accidents and damage suits. Take a case like this where a pedestrian suddenly steps from behind a parked car. If you were the oncoming driver, could you stop in time? Of course you should keep your automobile liability insurance in force.



When is sand better than water to put out a fire?

This is important, no matter how much fire insurance you have. Water tends to spread oil and gasoline fires. Use sand. Also keep a foam type fire-extinguisher handy.

Why did father have to pay more than you?

Insurance used to cost more in his day. Fires and accidents were more frequent then in proportion to the number of people insured. In recent years insurance companies, through inspections and educational work on safety standards, have encouraged safer building—safer for life and safer from fire. Insurance rates have come down accordingly.



What does this symbol promise you?

The Hartford stag on an insurance policy is your guarantee of ample financial resources to pay losses. Since 1810, disasters, conflagrations, depressions and wars have tested Hartford strength—and proved its impregnability. Let the Hartford agent in your community or your insurance broker put the stag on guard for you.



HARTFORD INSURANCE

Hartford Fire Insurance Company
Hartford Accident and Indemnity Company
Hartford Live Stock Insurance Company

Hartford, Connecticut

Writing practically all forms of insurance except personal life insurance

**Eliminates
WASTE IN
MAN-HOURS**

**... WHEN CLEANING
GREASE-CAKED
FLOORS**

The *Finnell 84-XR Industrial Dry Scrubber* offers war-time management a timely solution to a problem that is especially difficult in these days of severe labor shortage,—the problem of cleaning grease-*ca*ked floors. In one-tenth the man-hour time required by the tedious process known as hand-spudding, the *Finnell 84-XR*, with its two powerful scarifying brushes, digs through and thoroughly routs stubborn coatings of dirt, oil, grease, and shavings on wood, wood block, and cement floors. An invaluable aid in stepping up plant efficiency; its speed not only conserves man-hours but eliminates needless delay in restoring floors to a safe, sanitary condition.

New brush-saving feature of the 84-XR. A flip of a switch reverses the motion of the brushes, thereby constantly resharpening them and requiring less frequent need for changes. A slight adjustment adapts the machine to wet scrubbing, steel-wooling, waxing, or polishing.

For free floor survey, consultation, or literature, phone or write nearest *Finnell* branch or *Finnell System, Inc.*, 3802 East Street, Elkhart, Indiana. Canadian office: Ottawa, Ontario.

★ *Let's All Back the Attack — With War Bonds*

FINNELL SYSTEM, INC.

Pioneers and Specialists in
FLOOR-MAINTENANCE EQUIPMENT AND SUPPLIES

BRANCHES
IN ALL
PRINCIPAL
CITIES

LABOR

Pay Crackdown

NWLB presents a solid front in first case by backing its regional board's penalty for wage ceiling violation in New York.

Employer, labor, and public representatives on the National War Labor Board are in accord on cracking down on employers who violate wage stabilization rules.

• **First NWLB Action**—This united front against "black market wages" was established last week when the board unanimously upheld an opinion imposing penalties on the Howard Menu Service, Inc., of New York City.

Penalties for wage ceiling violations



FAST WITH A TORCH

From waitress to welder appears to have been a happy shift in jobs for 20-year-old Vera Anderson; she's now the two-time women's welding champion of the world; and to prove it is the trophy which was presented to her (above) by her employer, Vice-President W. R. Guest of Ingalls Shipbuilding, Pascagoula, Miss. To win it in a four-hour heat recently, Vera defeated Mrs. Edna Slocum, West Coast contender, who works for Moore Dry Dock Co., Oakland, Calif.

...been ordered by a number of regional boards, but this was the first time the NWLB had acted on an appeal of such penalties. The decision was used by NWLB to warn all employers that enforcing wage ceilings and penalizing violators will be, from now on, a fundamental part of the board's work.

Howard Menu Service had been reported violating wage ceilings, and the New York Regional War Labor Board wrote the company describing the complaint and requesting information. The company ignored the communication.

Employer Shuns Hearing—Inspectors, removed from the Wage-Hour Administration, obtained some employee statements, but were refused access to the company's books. The regional board again asked the company to cooperate in developing the facts. This written request also was not acknowledged. The regional board then called a hearing.

The hearing was not attended by the employer. An attorney for the company appeared alone, without any records or information pertaining to the alleged violation.

The national board issued subpoenas for a second hearing. On the employer's plea for more time, the hearing was postponed.

The company's employees failed to appear at the next hearing. A fourth hearing was held at the employer's office. A fifth meeting also was held there.

The tripartite hearing board unanimously concluded that the employer had made unlawful wage payments. The employer petitioned the national board for a review.

\$9,080.90 Sanction—The employer contended before NWLB that the business was run on a piecework basis and that the wage increases in question had been given because of increased employee productivity.

The board found no basis for the company's assertion that higher wages were due to higher productivity, and ruled that Howard Menu Service, Inc., had been guilty of violating wage stabilization regulations, and it recommended that economic sanctions of \$9,080.90—the amount of the illegal wage payments—be assessed against the company.

Under the law, the Bureau of Internal Revenue must follow NWLB's recommendations, and the company will be prohibited from entering \$9,080.90 of its wage bill as "a deduction under the revenue laws of the U. S. or for the purpose of determining costs or expenses under any contract made by or on behalf of the government."



Machine Gun Trainer in action—joint development of Hotpoint and Operadio engineers

THE ARMY BUILDS MEN, SAVES MONEY WITH

"Electronics"



... and when it's time to save money on electronic applications to your product or process, come to Operadio, designers and builders of the electronic portion of this unique machine gun trainer. Saving millions of dollars in ammunition cost and helping build better fighters, it was a welcome challenge to the ingenuity and experience we have been accumulating since we designed and built the first commercial portable radio more than 20 years ago. This seasoned electronic engineering and manufacturing organization may help you solve tomorrow's business problems as effectively as it is serving on today's war problems. Operadio Manufacturing Company.

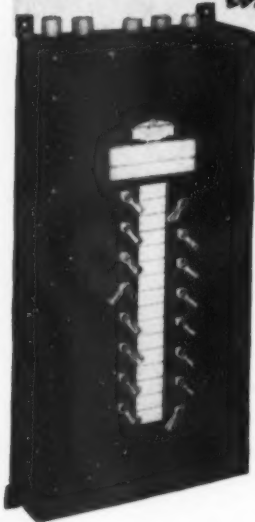
OPERADIO PLANT BROADCASTING FOR MUSIC AND VOICE-PAGING
... FLEXIFONE INTERCOMMUNICATION

OPERADIO Electronic Specialists

OPERADIO MANUFACTURING COMPANY, ST. CHARLES, ILL.

SYMBOL OF ELECTRONIC EXCELLENCE SINCE 1922

Designed for SAFETY in dust-laden atmospheres



Above: Standard type FA Dust-tight Lighting Panelboard and cabinet for wall or exposed column mounting. (12" or 15" wide, as required.)

Carbon black, coal dust, coke dust and grain dust are hazards. To guard against dust explosions which may be set off by exposed arcs,



DUST-TIGHT Light and Power PANELBOARDS

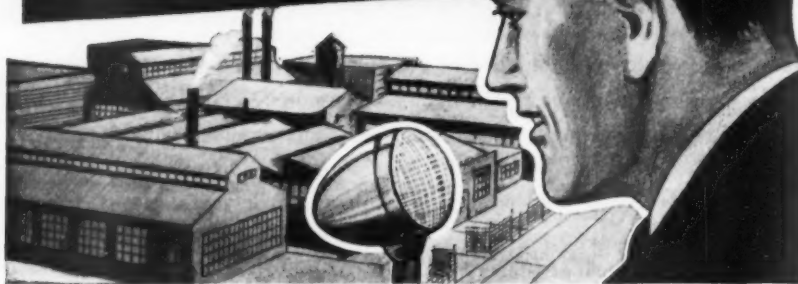
were expressly designed. They are providing vital protection in shell-loading plants, coal mines, coal processing plants, grain mills and other places where dust is dangerous. Approved by Underwriters' Laboratories, Inc., for "Class II, Groups F and G, Hazardous Locations."

Enclosure has a solid steel front plate, gasketed all 'round and secured with screws to the extra wide box flange, hubs for conduit outlets, welded corners, and external mounting brackets. The circuit breakers are externally operable through a new dust-tight mechanism of FA design, with ON and OFF indicators.

Branch circuit capacities: Lighting Panels—50 amperes or less, for 3 wire, single phase, or 4 wire, 3 phase mains, with lugs only or main breaker. Power Panels—50 to 600 amperes, 250 volts AC or DC, and 600 volts AC... Frank Adam Electric Company, Box 357, St. Louis (3), Mo.



COVER YOUR ENTIRE PLANT in a SPLIT-SECOND with BELL VOICE- PAGING EQUIPMENT



Keep in direct touch vocally with all your employees... talk to them at a second's notice anytime, while they're right on the job... get full, immediate attention to all bulletins, announcements, instructions and reports... and broadcast recorded music to help speed up production and raise employee morale. BELL VOICE Paging Equipment, the first to be specially designed for

industrial needs, gives you all these advantages plus many unusual features. Standard, heavy-duty, tamper-proof units combine readily to meet requirements of any extent or capacity, permit easy rearrangement of expansion at any time. Write today for details on BELL VOICE PAGING EQUIPMENT!

BELL SOUND SYSTEMS, INC.
1187 ESSEX AVE., COLUMBUS 3, OHIO
EXPORT OFFICE: 4800 EUCLID AVE., CLEVELAND 3, OHIO



Peace Restored

Tommy Ray's local buried the hatchet with boilermakers but Ray is out of the picture. New election is scheduled.

Peace settled over the marble palace of the A.F.L. Boilermakers Union in Portland, Ore., this week, but Tommy Ray wasn't there to enjoy it.

● **Ray Frozen Out**—The ebullient secretary-treasurer of Local 72 had been kicked out by the local courts (BW-Nov. 27 '43, p. 104), and the State Supreme Court had slammed the door on his face (BW-Dec. 11 '43, p. 102). And now the union itself hauled in the welcome mat.

The turbulent affairs of Local 72 came to a head at the recent convention of the boilermakers' international union in Kansas City. Eleven delegates from the local, elected under the eye of a court-appointed receiver, were snubbed at the convention hall and they filibustered for two days.

● **Hatchet Buried**—But not until the convention had elected Charles MacGowan to succeed J. A. Franklin as international president did the representatives of Portland's 46,000 union boilermakers get the attention of the chair. How MacGowan composed the differences between international and local union was not disclosed. But MacGowan announced that the hatchet was buried—and it seemed clear that it was buried in Ray's neck.

The new international president will go to Portland next month and supervise an election of local union officers. His announced objective is to restore autonomy to the local, a prerequisite of which will be to dissolve the court receivership.

● **All May Vote**—The election is to be held continuously Mar. 6 through Mar. 8 to give all the members employed in the shipyards an opportunity to vote.

In the final, exciting stages of the Ray regime, more than a dozen lawsuits sprouted in the state courts. Now that the dove of peace has folded its wings and come to rest on the dome of Local 72's marble palace, all the litigation is to be dropped.

OFFICERS RESIGN IN PROTEST

Pittsburgh's big independent union of electric utility workers is licking new wounds from the internal conflict which arose from an unauthorized sit-down strike of billing clerks and meter readers (BW-Feb. 5 '44, p. 98).

Five of the elected officers of the

dependent Assn. of Employees of Duquesne Light Co. & Associated Companies have resigned, blaming the "arbitrary and high-handed conduct" of the salaried president, George L. Mueller.

It was a surprise turn in Mueller's career. Only a fortnight before, the officers were steaming up a campaign to impeach him—a drive they abandoned when the C.I.O. Utility Workers Organizing Committee took advantage of the ruckus to renew its overtures to the Duquesne Light employees.

Mueller was in disfavor on the executive board because he sided with the owners in their demand for removal of a supervisor. They returned to work under a compromise.

Another Lewis?

Head of mechanics' union copies John L.'s tactics and gives NWLB a sharp challenge to regain its former prestige.

Fire-eating Matthew Smith, secretary of the Mechanics Educational Society of America, who considers himself a "little John L. Lewis," has become a guinea pig in a National War Labor Board effort to recapture the prestige it lost when the government yielded to big John L. Lewis.

Ignored Summons—Aping Lewis' tactics, Smith ignored a board summons to appear at a public hearing to explain why 25,000 M.E.S.A. members participated in a four-day strike affecting 44 Michigan and Ohio war plants, but he did appear at a second hearing after being subpoenaed twice.

NWLB wanted Smith because his organization was leading a strike that started last week end when the National Labor Relations Board scheduled a hearing on a petition by the C.I.O. United Automobile Workers for a plant-wide election at Willys-Overland in Toledo.

About 900 M.E.S.A. members walked out at Willys, and other strikes began simultaneously in M.E.S.A.-affiliated Detroit and Cleveland shops. At the same time, Smith telegraphed the managements of the struck plants that the dispute was solely with NLRB.

Charged Favoritism—To newsmen he explained that past history established that NLRB, which he charged with C.I.O. favoritism, would order the plant-wide election after the hearing, and his nearly 1,000 craft members would be defeated by the 9,000 U.A.W. production worker members.

Precedent thus established, he de-

SHIFTS in POPULATION Demand SHIFTS in DISTRIBUTION



*An Important Message
to Manufacturers*
from PRENTICE COOPER
GOVERNOR of TENNESSEE

YOUR present distribution set-up may be inadequate to meet post-war competition because of the increasing shifts in population.

Tennessee is the center of the fast-growing South and Southwest. Your factory, assembly plant, or distribution branch in Tennessee will make it possible to meet competition with quick service in this fast-developing section.

Tennessee is within 500 miles of more than 51% of the entire population of the U. S. (1940 census) and the percentage is growing.

Central location is only one of the many advantages to plant locations in Tennessee. Read the other basic advantages listed.

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Write for specific information and surveys relating to your particular requirements. Ask for illustrated book: "Tennessee—Land of Industrial Advantages."

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- ★ An unsurpassed variety of major industrial minerals and agricultural products and materials.
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- ★ Ideal living conditions for both employer and employee.
- ★ Sound State tax structure. No personal earnings or sales taxes.
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Post-war packages must receive the same careful planning as the products entrusted to them for safe arrival. Damaged deliveries never create customer good-will. So plan *now* for your post-war packages, and plan to use corrugated boxes that both protect and promote your products. H & D's vast storehouse of war-time packaging information is available now for planning peacetime packaging. Write today for complete details.

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The chief requirement in packaging war goods is to get as much essential material to specified destinations in the fastest, safest, most economical way. "How to PACK WAR MATERIALS in Corrugated Boxes" tells how H & D boxes are effecting new shipping efficiencies and economies in important war packaging assignments. Get copies of this and other H & D Little Packaging Library booklets by writing The Hinde & Dauch Paper Company, Executive Offices, 4461 Decatur St., Sandusky, Ohio.

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clared, would be followed up by action in other M.E.S.A. plants where parallel conditions prevail, such as Electric Auto-Lite at Toledo.

Other officials of the union declared that they had been unable to obtain NLRB election hearings, much to the regret of the union. The union contract to U.A.W., and that there was no justification for NLRB's taking action it did in the Willys matter.

• **Strike Postponed**—When the National War Labor Board finally managed to get Smith to Washington, his wife and children were on their way back to work. At least there be an impression that he was retreating before government authority. His first public statement at the case was an announcement that the strike had not been called off, was merely "postponed."

At the NWLB hearing, Smith delighted the board—made fun of its members. He boasted that the strikes had occurred in violation of the Connally-Smith anti-strike act, predicted that more strikes would occur from time to time unless the board provided labor representation on its main body for independent unions.

The board, used to having such hearings wind up with promises to do good in the future, was somewhat perplexed by Smith's approach. In fact, Chairman W. H. Davis at one point was stampeded into promising Smith that the board would "at once" consider his request for representation.

• **Threw the Book**—After the public hearing terminated and the board resumed executive sessions, members realized that Smith had outdone Lewis by pushing them around. Then, they threw the book at him.

Issuing a one-page statement, the board announced that it had referred the case to the White House, asking



Union leader Matthew Smith threatened Washington with one of the toughest battles that have ever been fought on the labor front.

ident Roosevelt to (1) consider tak-
civil action against M.E.S.A. for
ng called the strike without the 30-
notice or strike ballot required by
Connally-Smith act, and (2) pre-
to take criminal action in the
at of a renewal of the strike.

ot the **Real Issue**—In its statement,
board took pains to explain that
lack of independent union repre-
mation on the board was not the real
in dispute—that M.E.S.A. had
ed the strike to protest the holding
hearing by the National Labor Re-
ons Board on a U.A.W. petition for
gaining rights in a Willys-Overland
edo tool room now organized by
E.S.A.

Smith explained at the hearing that
k of independent union representa-
on on NWLB was being exploited by
C.I.O. to raid his ranks whenever
board rejected a M.E.S.A. wage-
increase application.

Much **Opposition**—Recognition on
e full board of independent unions
s been fought by the A.F.L. and
I.O. on the ground that many of the
affiliated groups are company-domi-
ated. The board has provided recog-
nition to independent unionists only
a subordinate panels.

Davis said that there were "many
difficulties" in the way of giving full
ognition to independents, and the
ard statement emphasized that noth-
g would be done about the matter as
ng as the threat of a strike was out-
standing.

Smith stated that he recognized he
ight be "incarcerated" but warned the
board that the highly skilled members
of his union might not provide "100%
roduction" while he was confined.

Up to the Board—The board feels
that unless it scores a clear-cut tri-
umph over Smith, it might as well go
out of business. It cannot see how his
efiance can go unpunished without
pening the floodgates to a wave of
rikes.

C.I.O. LOSES AT DOUGLAS

Donald Douglas can still boast of
having the biggest nonunion plant
on the West Coast as a result of the
National Labor Relations Board's run-
off election (BW—Feb. 5 '44, p. 108) at
Douglas Aircraft's Santa Monica opera-
tion. "No union" got 53.3% of the
otes cast in a contest with C.I.O.'s
United Automobile Workers.

Explaining both the outcome of the
election and the general interest it
attracted is the fact that A.F.L. mem-
bers in the plant, who together with
the C.I.O. unionists make up a major-
ity, voted for no union in preference
to U.A.W.



WHEN PORTABLE COMPRESSORS PLAY VOLUNTEER FIREMAN . . .



● Among the many roles played by portable compressors in this global war, is fire-fighting. Even the most isolated posts get quick and dependable relief from fires kindled by enemy raids because these units draw water from any source and deliver a strong, steady stream to the flames.

In many of these compressors, dependability is assured by Pedrick *precisioneered* piston rings. They have correct and lasting tension, absolute flatness and true shape because of Pedrick's patented processes of double-disk grinding and Heat Shaping.

Not only on innumerable war fronts, but on every home front where internal-combustion power or pressures must be kept at top efficiency in spite of overloads, over-age and over-hours, PEDRICK piston- and sealing-rings are easing the burdens of the Nation's service and maintenance men. WILKENING MANUFACTURING CO., Philadelphia and Scranton, Pa. In Canada: Wilkening Manufacturing Co. (Canada), Ltd., Toronto.

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Union in NWLB

Employees of board form an independent. They feared a C.I.O. affiliate might embarrass the government agency.

A government employees' union affiliated with neither the American Federation of Labor nor the Congress of Industrial Organizations has developed within the National War Labor Board to "bargain" for some of the board's employees.

● **Limited Bargaining**—Like all government unions, its bargaining is generally limited to questions of promotions, efficiency ratings, and petty grievances that are bound to develop, since Congress establishes the basic pay schedules.

The NWLB union—known as the War Labor Board Employees Union—is an offshoot of the war agency's local of C.I.O.'s United Federal Workers of America. NWLB employees belonging to the U.F.W.A. decided that the existence of a C.I.O.-affiliated union within the board was embarrassing to the board and hampering their bargaining position—so they set up shop as an "independent" union.

● **Might Be Awkward**—They reasoned that board supervisors might hesitate to grant recognition to a C.I.O. union for fear that the A.F.L. government union—the American Federation of Government Employees—also might become established within the board, confronting the agency with an awkward jurisdictional problem.

The experience of the NWLB union parallels the history of the government

employees' union at the National Labor Relations Board. NLRB employees longed to the A.F.G.E. at the time of the split between the A.F.L. and C.I.O. Many of the NLRB employees were sympathetic to the C.I.O. movement but decided that their best interest would be served by withdrawing from the A.F.G.E. and securing an independent status.

● **Boosts Promotions**—The union thrived since, contributing to the development of one of the best promotion-from-within programs in the government.

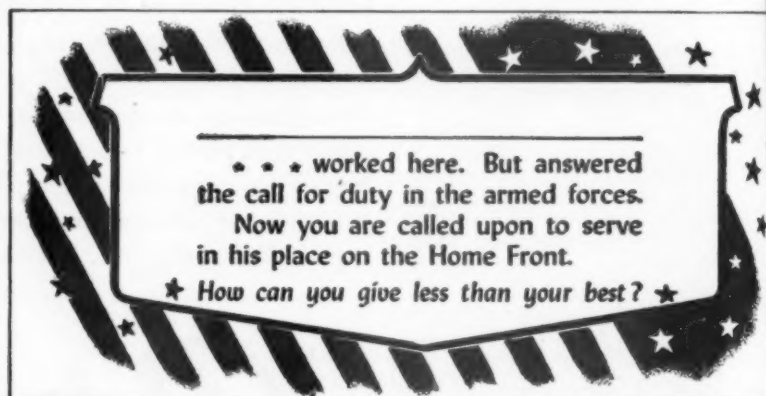
In the NWLB case, many of the members of the union have retained their membership cards in U.F.W.A. for sentimental reasons.

COST-PLUS CONDEMNED

The cost-plus contract felt the lash of a judge's tongue when seven employees of the Dallas plant of North American Aviation, Inc., admitted falsifying time cards and were sentenced to terms ranging from 60 days to 18 months.

Because North American was operating, at the time of the offenses, under a cost-plus contract, the defendants were charged with conspiracy to defraud the federal government by having their time cards punched during their absence in order to draw heavier pay than they were entitled to.

In U.S. District Court at Dallas, Judge T. W. Davidson condemned the conspiracy but reserved his bitter language for the cost-plus contract. He implied that plant officials knew about the falsification but made no effort to prevent it as long as the cost-plus contract was in force. North American



PRODUCTION REMINDER

As draft boards lift the occupational deferments of men under 22 (BW—Jan. 15 '44, p90), stickers with the patriotic motif grow more evident in

Goodyear's Jackson (Mich.) plant. Each emblem (above) lists the servant's name and is pasted to the desk or work bench he vacated. They provide a constant reminder for remaining workers to keep producing.



NEW CHEMICAL FIBER CREATES ELASTIC BANDAGE

IT WASN'T so long ago that the rubber shortage threatened to take the rubber out of elastic bandages. And like every other commodity plunged suddenly into a war economy... civilian requirements were dwarfed by military needs.

That was the situation which faced Becton, Dickinson & Co., manufacturers of Ace elastic bandages. They came to us with their problem.

At the time, our research laboratories were experimenting with a new synthetic resin textile yarn... Vinyon** E... that will stretch up to three times its length! So we are able to provide stretch *without* using an ounce of rubber.

There are many therapeutic uses for elastic bandages that require extra tension. This new Vinyon E version of the famous Ace #8 elastic bandage is peculiarly adapted

to those purposes. It provides needed tension. Body heat helps to maintain this tension. Pressure of this bandage can be varied to suit needs, which minimizes danger of constriction.

Not only has surgical therapy benefited by the research behind this resin fiber, which has been engineered to do its particular job. Vinyon E, now available in bandages, will bring its advantages to many other consumer products of the postwar era.

Today, as a part of the continuous research program of American Viscose Corporation, we are continually experimenting with fabrics woven of many new types of man-made fibers including Vinyon, Rayon and others. Tomorrow, these experiments will bring new comforts to your daily life.

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PROBABLY not—for Hackney shells and special shapes of the same type not only look alike but are alike, inside and out.

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every step of their manufacture by modern heat-treating and quality control equipment, which make Hackney uniformity more than "skin deep."

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DEEP-DRAWN
SHAPES AND SHELLS



is turning out planes under a fixed-price contract. The firm, which was not accused, denied prior knowledge of the fraud.

A jury disagreed on similar charges against the night superintendent of the tool-planning department and his secretary, and they are to be retried Feb. 2.

Farmer Gets Lift

U. S. spent \$13,000,000 to bring helpers from Bahamas, Mexico, and Jamaica last year. Many will return.

When the "Okies" and "Arkies" got jobs in the shipyards, and migrant agricultural laborers vanished, the U. S. turned to Mexico and two British colonies for men to work on farms which in three years have yielded some 800,000 pairs of hands to the armed services and another 3,500,000 to war industries. • **More Are Coming**—Last year 56,301 Mexicans, 8,826 Jamaicans, and 4,698 Bahamians were brought in. This year 66,900 will be put to work if harvests are big enough to need them.

The cost to this government was about \$13,000,000 last year. About the same amount will be spent this year from a new \$30,000,000 appropriation that also covers local labor recruitment in states, interstate transportation of 60,000 U. S. workers (three times as many as last year), and volunteer labor programs, as well as \$3,500,000 for 49 new mobile camps to add to the 150 camps of all kinds used last year.

• **How Much They Earned**—A lot of the money the visiting workers earned was spent in the areas where they worked, but much was sent out of the country. The Mexicans are estimated to have earned \$20,000,000, the Jamaicans \$4,600,000, and the Bahamians \$1,800,000.

Even Californians, who haven't been too friendly with Mexicans, liked last year's workers, and over half of the Mexicans were employed in that state (BW-Jul. 31 '43, p85). In 1942, when only about 3,000 Mexicans were brought in, the first trainload was met in Sacramento with a band, and the workers were given a banquet by the farmer employers. Since then there have been fiestas, free English classes, and Spanish radio programs to make the good neighbors happy. Nevertheless, of that first band of 3,000, only 1,700 renewed their three-month contracts, and last year nearly 40,000 Mexicans went home at the end of that period.

• **Farm Workers Picked**—Mainly experienced young farm workers from Michoa-

can, Jalisco, Guanajuato, and Zacatecas were picked. The program got off to a late start last year because Mexico had temporarily halted it.

Jamaicans caused more trouble than the others (BW-Jul.31'43,p8). They objected to Jim Crow-ism, and they frightened villagers when they took over a town's only ice cream parlor by sheer numbers. Three-fourths of the Jamaicans, about 6,000, left when their contracts ran out; probably no more will be imported this year. Instead, about 8,000 Puerto Ricans and Cubans will be sought.

A fifth of the Bahamians were women, but neither Mexico nor Jamaica would allow women to come here. The Bahamas will send 5,000 workers this year. Many were flown in last year because the Navy didn't want to convoy ships.

•**How to Get Them**—To get foreign helpers, farmers need only organize, state their needs in numbers, sign a contract guaranteeing employment at prevailing wages (minimum 30¢ an hour although most rates were double that), provide good living conditions, and promise no discrimination.

Employment is guaranteed for 75% of the worker's time (except in the case of women) and 10% of wages are deposited for him in the worker's home country. Compensation insurance and medical care are furnished.

•**Taken Over by WFA**—Farm Security Administration initiated the labor importation program, but the War Food Administration's Office of Labor took it over.

This week the big farmers of Edward O'Neal's Farm Bureau Federation threw a fragmentation bomb into the Office of Labor. An amendment jammed into the appropriation bill directed WFA to turn over management of the farm labor program to any state that asks for it. Damage may not be great, however, since WFA may contrive to hold its own through its authority to terminate any state program that violates an international agreement.

OPA issues ration books to the visitors, although many big specialty ranches fed their men for \$1.50 a day.

•**Objections at Home**—There is opposition to lending labor, notably in Mexico where some factions deplore the big wages the men earn in the U. S. Three pesos a day, about 60¢, is not an unusual farm wage below the border. The money that the worker carries or sends home is sometimes alleged to be inflationary.

•**All Were Examined**—The U. S. gave applicants physical examinations before entry, and paid travel expenses. It cost \$156 a round trip for Mexicans (including subsequent movements following seasonal crops), \$140 for Jamaicans, and \$50 for Bahamians.



Typical use of Battery Industrial Truck for Carloading

LOOKING AHEAD WITH THE RAILROADS

One of the reasons for the outstanding job being done by American Railroads in moving war supplies lies in the fact that carloading time has been cut by mechanical handling, thus increasing the car-miles per car.

Prior to the war, many progressive industries had demonstrated that by shipping package freight in units of 2 to 5 tons on skids or pallets, and handling them with industrial trucks, they could cut carloading time from days to hours—and from hours to minutes—with worthwhile savings in man-hours.

Profiting by this experience, the supply services of our armed forces are applying the same methods to a still wider range of commodities—subsistence, clothing, ammunition, and many other supplies that were formerly handled manually in small units. Result: further speeding up of carloading; further savings in man-hours; corresponding increases in car-miles.

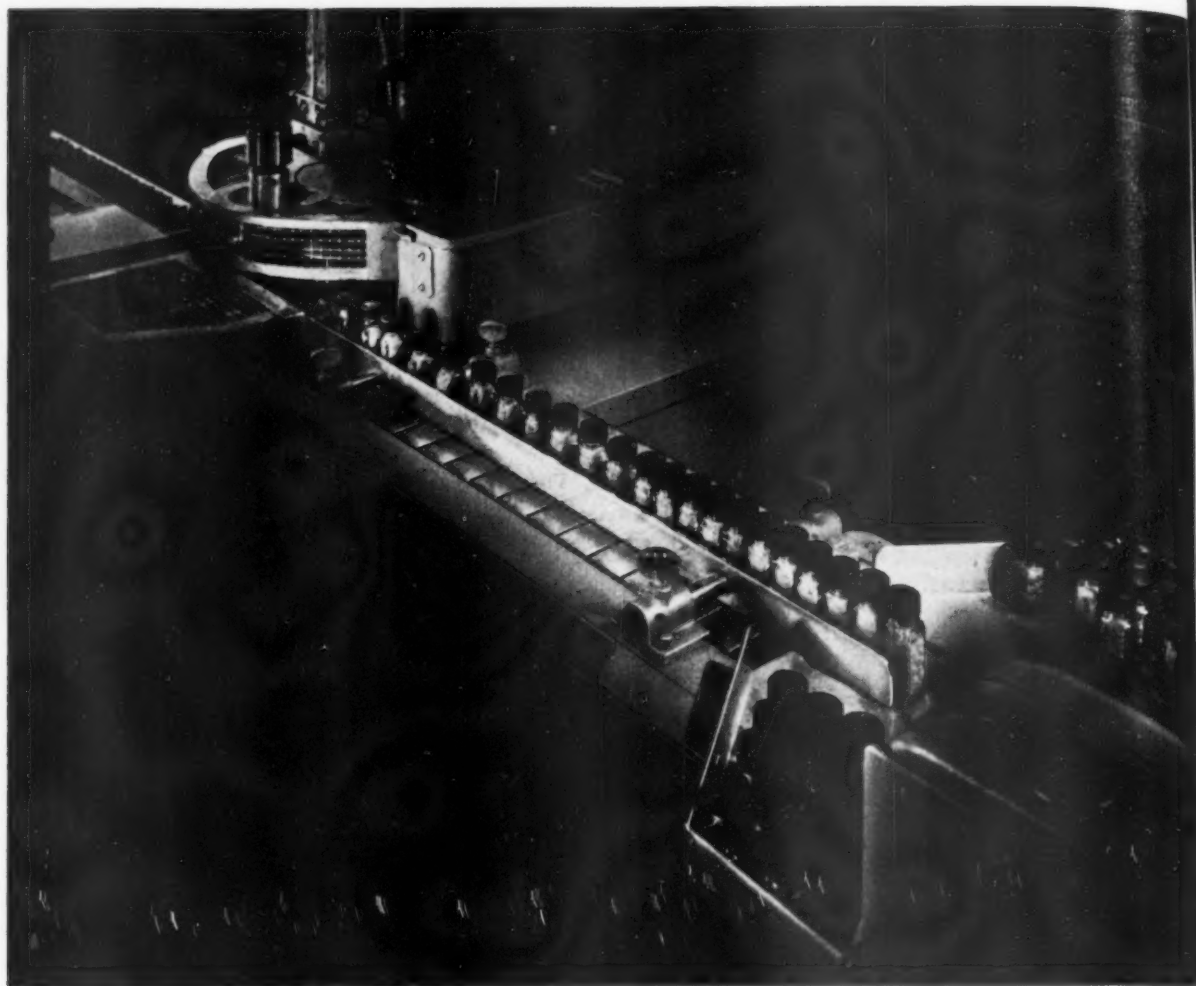
This advantage is worth saving when peace comes, not only because it will help the railroads, but also because it will greatly reduce the cost of distribution in competitive markets. When peace comes, shippers should be encouraged to continue to package their freight on skids or pallets in units of 2 to 5 tons. "Unit Loads; Their Handling, Shipment, and Storage," a bulletin now in preparation, contains much useful information. Reserve a copy.



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Production of the vast amount of this chemical needed by the Armed

Forces is a tremendous task. Its accomplishment requires new methods of mass production . . . assembly line production.

In the illustration above, you see a part of that production line. The bottles move smoothly and steadily along on REX Table Top chain belt, never jerking—never tipping. They are filled, a piece of cotton is inserted, and the caps are put on and tightened.

REX Table Top chain belt is one of the latest developments of Chain Belt Company engineers. It provides a steady, tip-free surface for the economical moving of bottles, cans, packages or any flat-bottomed container. Wherever such materials are to be moved, or the transmission of power is necessary, the smooth, positive grip of chain belts on

sprocket teeth provides the most efficient method.

Chain Belt Company also manufactures a complete line of material handling equipment, specialized engineering products and construction machinery for the moving of water and the mixing, hauling, placing of concrete.

REX Chain Belt and Transmission Division, REX Conveying and Engineering Products Division, REX Construction Machinery Division, Milwaukee 4, Wisconsin; Baldwin-Duckworth Roller Chain Belt Division, Springfield 2, and Worcester 3, Mass.

CHAIN BELT CO.
OF MILWAUKEE

THE WAR AND BUSINESS ABROAD

BUSINESS WEEK
FEBRUARY 12, 1944



Don't miss the significance of current political maneuvers in Russia, Britain, Spain, the Middle East, and Argentina. They are not mere day-to-day efforts to win a momentary military advantage on today's battlefronts. **They are carefully calculated plans—especially in Moscow's case—for a new kind of world after the war.**

There will be no big peace conference at the end of the war. Instead, problems will be solved as they arise at a continuing series of small conferences.

Moscow is taking the lead on the diplomatic front in the same thorough, vigorous—and decisive—way that it has in all military affairs.

There will be no international conference over the postwar status of Estonia, Latvia, Lithuania, or of the parts of Finland, Poland, and Rumania which Russia is claiming. The autonomy plans for Russia's 16 republics have been announced now in order to provide the framework into which recaptured territories will fall as supposedly independent republics.

The remainder of the Balkans, including even non-Slavic Greece, will drop into the Russian sphere of influence.

Washington, London, and Chungking are following Russia's plans nervously. There is little doubt that China's claims to liberated Manchuria will be honored. But can Chungking hold this region?

During the last 15 years, Russia has quietly set up a republic in neighboring Outer Mongolia, built roads, modernized livestock production, and established schools among a population which for centuries had been nomadic.

Question now is whether the Manchurians, when the time is ripe, may not be tempted into a similar setup, particularly if Moscow is able to offer more rapid industrial development than poor and overworked Chungking can.

The same problem confronts Britain in the band of economically backward and politically unstable countries—almost all of them British-controlled or British-dominated—on the southern borders of the Soviet Union.

Market-minded executives in the U. S., concerned over the vast industrial capacity that will be available there after the war, have an eye on this region.

In the Asiatic countries between Russia's Balkan frontier and the Siberian frontier of China is a market of nearly 1,000,000,000 people.

Despite Britain's big investment and direct political interest in this region, **there is no trace in London yet of bold new schemes to build the Commonwealth into an industrial giant capable of meeting the challenge of Moscow.**

India would welcome a series of five-year-plans aimed at turning the country into a great industrial power. Its iron ore, coal, and manganese reserves are big enough to support a steel industry comparable not only to Russia's but to that of the U. S.

Britain's political maneuvering, though showing more vigor and imagination, has run into a snag.

The November speech of South Africa's Premier Jan Smuts, inviting neighbors in western Europe to join the Commonwealth, has brought little significant reaction from France, Holland, Belgium, or the Scandinavian countries.

When Lord Halifax renewed the appeal for strengthening Commonwealth ties in his Toronto speech two weeks ago, he started a heather fire in Canada that is still blazing so fiercely that it pushed the war into second place in newspaper editorial pages and clubroom argument.

Challenge to the plea for stronger Empire ties after the war came from three powerful elements in Canada: French-Canadian isolationists of Quebec who oppose Canadian

THE WAR AND BUSINESS ABROAD (Continued)

BUSINESS WEEK
FEBRUARY 12, 1944

participation in the war; anti-imperialist socialists; and surviving advocates of collective security.

Canada's growing desire for closer economic ties with the U. S. (BW—Feb. 5 '44, p111) will determine Ottawa's ultimate stand on all Empire pacts.

Unlike Russia and Britain—and contrary to its isolationist stand after the last war—the **U. S. is not trying to build around itself a postwar economic or political bloc.**

Washington's decision to build a 1,200-mile, \$160,000,000 pipeline from U. S.-developed oil fields along the Persian Gulf to the Mediterranean, where huge emergency supplies will be maintained, is carefully explained as a "first step toward collective security in the postwar world." (The pipeline will not be finished until 1946.)

The private companies look on the move as assurance that they will be allowed to drill for and refine oil without government participation in the business. Yet the managements will get something less than full freedom of action because the "State Dept. will control all sales in the light of U. S. foreign policy and the requirements of collective security."

The Arabian oil deal sets a definite pattern with respect to other raw materials we may need for "collective security."

Incidentally, the government deal borrows a trick from the cartels. Nobody can build another pipeline to compete until there is more oil than this one can handle. Also, the U. S. gets, in return for its financial backing, an agreement for 25-year amortization, interest, and a share of the profits as may be agreed upon later.

Despite vigorous protests this week from both the British and the U. S. ambassadors in Madrid against the Allies' stiff new Spanish policy, Washington will ignore all pleas to lift the oil embargo until Spain has curbed Axis agents and withdrawn Spanish troops from the Russian front. Franco's release of the Italian ships interned in Spanish ports indicates how seriously the oil embargo has hit.

Printed stories that Britain and the U. S. intend to embargo food, as well, and set up a complete blockade of Spain are irritably denied in the State Dept. which thinks that the oil embargo will do the job.

Washington has an especially difficult problem in Spain. The Nazis desperately need the tungsten (necessary for hardening steel) which comes from Spain and Portugal because they provide 95% of the German supply. By agreement, tungsten of both countries is sold on about a 50-50 basis to the Axis and the Allies.

Knowing that Nazi war production would be quickly hit if the tungsten supply were cut off, Washington is at last moving to dry up deliveries to Germany.

Because evidence continues to accumulate that Argentina had laid elaborate plans (in Nazi style) to precipitate government overthrows (in the Bolivian manner) in South American countries as far away as Ecuador (page 109), **no lend-lease aid to help modernize the Argentine army, navy, or air force is likely to be granted.**

Watch for the results of next week's meeting of the U. S.-Mexico Joint Economic Cooperation Committee in Washington, for it will reveal the pattern for economic collaboration with other Latin-American countries.

Mexico is asking for equipment to enlarge its steel industry, modernize its textile mills, and build a number of new cement works.

Next week's meetings will reveal the kind of projects Washington is prepared to back, the extent to which the U. S. committee has found it necessary to alter the original requests, and the amount of material promised for early delivery.

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Neighbors Alert

Latin-American republics watch Washington and Buenos Aires for final outcome of the recent diplomatic showdown.

Argentina's neighbors, jealously aware of the shrewd way in which Buenos Aires managed—up to three weeks ago—to do business on a big and profitable scale with both the Axis and the United Nations, are now watching to see whether Buenos Aires or Washington is the victor in the recent showdown (BW—Jan. 44, p16) which resulted in the breaking of Argentine diplomatic relations with the Axis.

Supplies Watched—They will have their answer if Washington offers Argentina badly needed supplies of iron and steel products, machine tools, and transportation equipment on a lend-lease basis without first demanding a full cleanup of Axis activities within the country. The fact that Argentina will most certainly pay for the supplies on "cash reimbursable lend-lease" basis will make little difference.

Uruguay, for example, will not forget that Argentina offered a refuge to seamen from the Graf Spee when that Nazi warship was scuttled under the eyes of the British in the River Plate and later allowed almost all of them to escape from the country; or that Uruguay has been virtually without gasoline since Montevideo followed Washington into the war, while Argentina rode comfortably on its own supplies without making any offer to share them with its neighbors across the river.

The following uncensored report just received from Chile throws into a new perspective the role that many Latin Americans believe Argentina still hopes to play in South America:

Aiming to make Argentina one of the major powers in the world and the colossus of the south, Argentina's military and government leaders have faced the bitter truth that—within her own borders—Argentina does not possess the raw materials and power resources on which a great nation is built.

Persuading the Neighbors—The militarists who have ruled the country since the overthrow of the Castillo government last June have evidently decided that they must bring into their orbit and detach from the United States their immediate neighbors who own resources.

One of them, Bolivia, with its rich reserves of tin, copper, oil, antimony, tungsten, and rubber, was a pushover. Only in the last few days has it been revealed that

Argentina offered, as a part of its bargain with the profascist government it engineered into office last December, to buy all Bolivian tin if Washington threatened economic sanctions (BW—Dec. 25 '43, p7).

Similar coups were planned for Peru and Chile, where Argentina hoped to secure future supplies of iron, coal, and copper. In addition, there were plans to carry over the Andes the power being generated in Chile's growing network of hydroelectric stations (BW—Jan. 1 '44, p44) to enrich western Argentina.

Brazil Help Resented—The coups failed, but that does not mean that all attempts to build a strong bloc of nations with Argentina as a center will be abandoned. Buenos Aires resents the progress the United States has made in strengthening the economies of other Latin-American countries, and particularly resents the industrial boost that has been given to Brazil.

When Washington struck back with unexpected vigor following the Bolivian coup, Argentine leaders were forced to alter their schedule; but while marking time—behind the camouflage of a break with the Axis—they are pushing their plans in other lines.

Revising Tariffs—With Chile, Paraguay, and Uruguay, they have made a start on tariff revisions which are intended to grow ultimately into full-fledged customs unions.

With all of their immediate neighbors and with Peru and Ecuador, they are exchanging students, professors, and military missions.

To inaugurate the flow of Chilean iron ore to the Argentine and so help to create a heavy industry, Buenos Aires has contracted to buy 7,000 tons of ore in 1944 in

order to help supply a small new steel plant.

Money Is Plentiful—Argentina's economic position, both internally and among the Latin-American republics, is very strong.

Money is so plentiful that Buenos Aires bankers have asked to bid on the financing of Santiago's projected subway, and on bond issues covering the cost of the country's new hydroelectric plants.

Huge sales of wartime supplies to both Britain and the United States have built up enormous balances in both New York and London and made it possible to add to the country's rapidly growing gold reserve.

Living Costs Controlled—The cost of living is kept down by firm government controls. The loss of European markets has been more than made up by new markets in Latin America, Africa, and—in a few lines—in the United States.

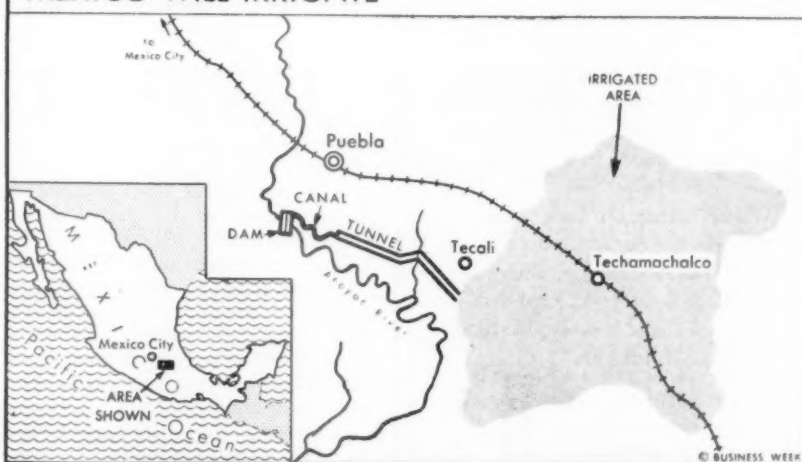
Argentina has increased its wartime trade with every country in Latin America and it believes it can hold the business after the war (BW—Dec. 25 '43, p66).

In addition, the Argentines have gambled from the beginning of the war that a starving Europe will clamor for cereals and meat as soon as the war is over and not ask whether it is from a fascist or a democratic country. As a result, Argentine farm acreage is being expanded as rapidly as possible; so are pig production and the country's consumer goods industries.

Convenience vs. Convictions—It may be true that the majority of Argentines are pro-Allics, but this does not mean that they are necessarily willing to give up the bountiful prosperity of the last four years for the sake of their convictions.

Buenos Aires for more than two years has

MEXICO WILL IRRIGATE



Ten per cent of the Mexican national budget in 1943 was devoted to irrigation, and better than that percentage of the Irrigation Commission's funds was spent in El Valsequillo. There, behind a 275-ft. compacted earth-fill dam on the Atoyac River, 520,000,000 cu. yd. of water will be stored. Four contracting firms are working on the 16½-mile distribution canal (map).

The seven-mile tunnel, being cut in three sections by Rosoff Constructura, S.A., subsidiary of Rosoff Subway Construction Co., New York, has an internal diameter of 20 ft. El Valsequillo project will permit irrigation of some 112,000 acres, inhabited by over 40,000 farmers. Construction this year will cost \$4,000,000, and completion is scheduled for early 1946.



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All their strength may then be devoted to production—to making things instead of lifting them. This means lowered production costs.

Workers are happier on the job for there is no dread of strained back, of rupture or over-fatigue from lifting. Just removing this danger allows them to concentrate on the work.

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Wherever there is a hook to hang it and an electric outlet for the plug, a 'Budgit' can be hung up, plugged in and it is ready for work. After that, it pays its own cost innumerable times over during its long life.

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blatantly pointed out to neighbors that its political policy has left it better off than their prodemocratic policy, and—measured in terms of inflation, shortages, and confusion—the neighbors have had to admit that this is true.

• **Still Pertinent**—These are some of the facts which Washington has not disclosed during the last tense six weeks, but which are as pertinent as they were before Argentina broke with the Axis—unless Washington and London force Buenos Aires into a genuinely cooperative role. Nothing has happened yet to indicate that this is the case.

TROUBLE IN DRUGS

Since Pearl Harbor, the drug situation in Latin America has been increasingly difficult as the main suppliers, German-owned, were one by one eliminated from the field. Only now are U. S.-connected firms nearing the role of full suppliers.

Last spring the U. S. learned that drugs were being shipped by Quimica Schering, German firm in Argentina, to Ostern & Co., German firm in Lima. Delivery was stopped on the plea that if public health was endangered the drugs could be marketed by friendly firms. (Late last year another \$100,000 shipment of drugs from Schering in Argentina to a subsidiary in Venezuela

was grabbed by the U. S. in San Juan, Puerto Rico.)

In Lima, Ostern & Co., petitioned the Superintendency of Economy to release the seized shipment and permit the import of 75,000 pesos worth of drugs from Hamberg & Knoll Co., and 300,000 pesos more from Schering (both in Buenos Aires). A Ministry of Health certificate of necessity was obtained to support this demand.

Although shortages continue in special drug lines, Sterling Drug, Inc., subsidiaries Winthrop Laboratories and the Sydney Ross Co. and the American Schering, operating under Alien Property Custodianship, are fast reaching the point where they can take over the German-supplied trade.

HARDSHIPS IN THE ISLANDS

SAN JUAN, P. R.—The toughest days of scarcity are ending in the Antilles, but hardship still stalks the highways of Puerto Rico and the Virgin Islands.

An appeal from St. Thomas, Virgin Islands, for federal relief has been sharply rebuffed by Washington. Gov. Charles Harwood has told the municipal council that no relief measures will be considered in the United States unless and until the city imposes adequate

Good Neighbor Medina Looks at Boats

While part of Latin America seethes with political unrest (page 109), the better neighbors are making a play not only for wartime business but for postwar trade with the United States.

When President Isaias Medina of Venezuela visited the United States earlier this month, his eye was on the commercial potentials of Venezuela-American relations. After paying his respects to the capital, President Medina gave Higgins Industries, Inc., in New Orleans, the once-over—from PT boats to landing boats with a view to postwar buying.

This is not a new liaison, however, since the Higgins subsidiary in Venezuela has been conducting tests on converted Higgins landing boats and tank lighters in the interior. Venezuela is short on highways and long on shallow river systems, and acquisition of a fleet of small boats would go far toward solving not only internal distribution of goods but movement of products from the interior to Caribbean ports.

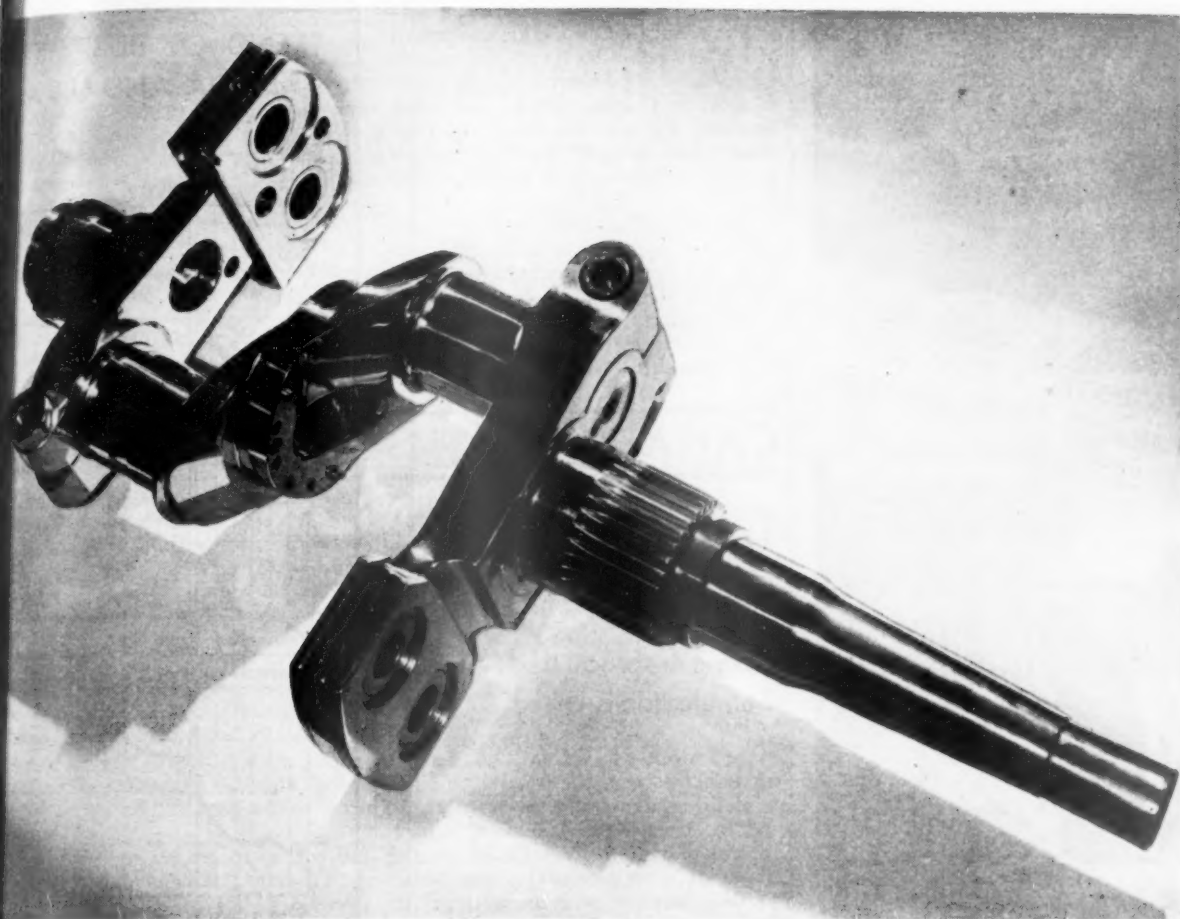
Venezuela is not the only Latin-American country with an eye on



new or surplus military items such as landing boats.

Brazil, months ago, put in a bid for any discarded shallow-draft craft for her São Francisco River, agricultural Eldorado in the interior of Bahia province, to be emphasized in Brazil's postwar development program (BW—Jun. 19'43, p101).

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That a difference in values! \$725—representing the cost of more than 100 operations necessary to complete this vitally important part of a fighting airplane's power plant.

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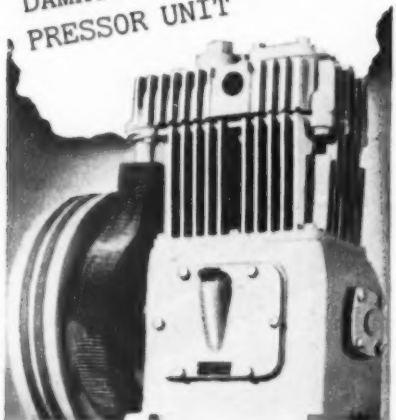
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taxes on the purchase of luxury goods.

The council is considering enactment of a \$2-per-gallon tax on all liquors, and excise taxes on cigarettes, playing cards, firearms and ammunition, and other luxuries. By now the supply of even these items is sadly depleted, though occasional shipments of Scotch whisky appear.

The council is simultaneously exercised over persistent, but unofficial, reports that St. Croix, southernmost U. S. Antillean island, is to be put under Puerto Rican jurisdiction, with St. Thomas and St. John assigned to U. S. Navy control.

CANADA

Trade in Politics

Mackenzie King may try to ride to victory at the polls by making reciprocal trade an issue if an election is called.

OTTAWA—If Canada gets a federal election this year, the Mackenzie King administration is expected to make its bid for victory by introducing a new reciprocal trade treaty with the United States as a supplement to the broad postwar security program outlined to Parliament (BW—Feb. 5 '44, p116).

• **Lower Tariff**—Low-tariff sentiment is on the upgrade, fanned by King's political rivals—the Progressive Conservative and Cooperative Commonwealth Federation parties.

Alert analysts of administration trends quote the speech from the throne, announcing the government's 1944 legislative program, to demonstrate their point. Quick resumption and expansion of trade after the war was emphasized, but at the same time the statement was made that "larger imports are needed to raise the standard of living" of Canada.

• **Record Cited**—More substantial, however, are the following exhibits:

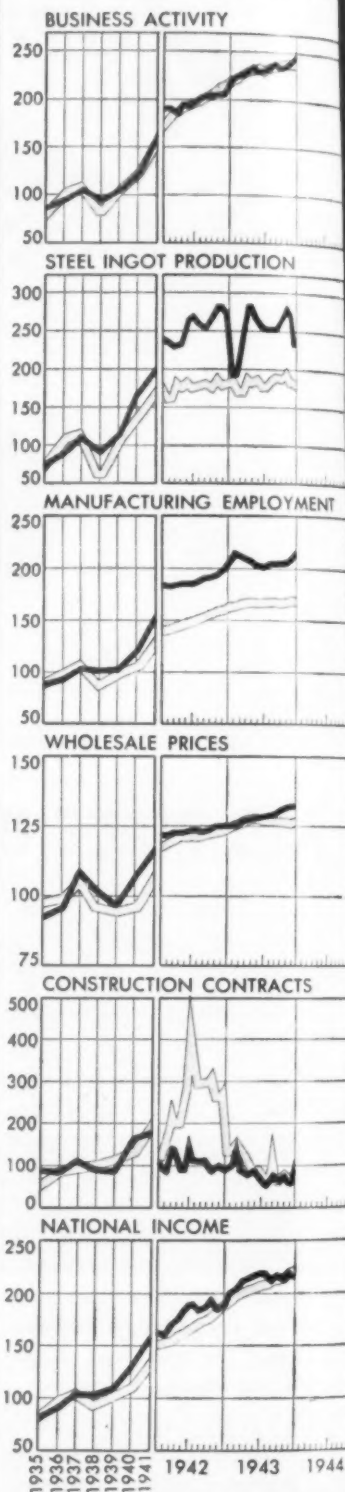
(1) Last fall Prime Minister King's parliamentary assistant, Brooke Claxton, proposed to the National Foreign Trade Assn. in New York an agreement among United Nations for ceilings on tariffs. He added that he would like to see Canada and the U. S. set an example to the world in actual lowering of tariffs. Then he tacked on the proposition that the two countries continue rationalization of production and supply after the war, each country producing and supplying the other with the goods it was best able to produce.

(2) Ottawa is studying proposals for free trade between Canada and the U. S. on such

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key items as automobiles, chemicals, and nonferrous metals. The report is from manufacturers who, having beaten U. S. producers on costs for war goods, are convinced they can compete on equal terms after the war.

(3) Ottawa is preparing for the loss of British Empire preference in a multilateral trade agreement which would have as a basis a triangular agreement between the U. S., Canada, and Britain (BW—Jan. 15'44, p. 67).

(4) Ever since the "rationalization" of the U. S. Canadian war economies was given practical meaning under the Hyde Park agreement (BW—Jan. 3'42, p. 32), some powerful political quarters have been advocating that Canada get out of uneconomic production, concentrate on what it can produce economically. This would require an understanding with the U. S. to permit free exchange of specific goods in north and south commerce.

Political Dynamite—Politically, reciprocity would dynamite the underpinnings of both the Progressive Conservatives, led by John Bracken of Manitoba (who is tied to western low-tariff and free-trade sentiment), and C.C.F., which has used free trade as bait for western farm votes.

Realists see obstacles to reciprocity in the U. S. trade agreements law limiting the power of the President to lower tariff barriers. Under the existing U. S.-Canadian trade agreement, Canada has received nearly all the concessions it can get legally.

Another barrier is the impending U. S. election. Ottawa does not think it likely that President Roosevelt, if he runs, would want to make reciprocity an election issue.

Nervousness over the reciprocity rumor is mainly centered among steel and automotive interests. Those who believe heavy steel production is uneconomic in Canada would have Canada import it from the U. S., and sell alloy and special steels below the border in return.

Concerning automobiles, it has been suggested that Canada continue to import passenger cars, sell trucks and tractors on the U. S. market.

CANADA EXPERIMENTS

Worried because Canada imports 83% of its oil requirements, the Dominion's Bureau of Mines has been experimenting with hydrogenation of coal, has operated a pilot plant since 1929 along lines being followed in the U. S. (BW—Jul. 31'43, p. 50).

Although Canada also imports coal, its own is of a low grade apparently suitable for hydrogenation. Big news for Canada, however, is that the House of Commons special committee on reconstruction is considering a Bureau of Mines' request for \$500,000 to build a bigger test plant to prove the commercial possibilities of synthetic gasoline.



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Atlas Corporation

Dividend on Common Stock

NOTICE IS HEREBY GIVEN that a dividend of 25¢ per share has been declared on the Common Stock of Atlas Corporation, payable March 10, 1944, to holders of such stock of record at the close of business February 15, 1944.

Dividend No. 30 on 6% Preferred Stock

NOTICE IS HEREBY GIVEN that a dividend of 75¢ per share for the quarter ending February 29, 1944, has been declared on the 6% Preferred Stock of Atlas Corporation, payable March 1, 1944, to holders of such stock of record at the close of business February 15, 1944.

WALTER A. PETERSON, Treasurer
 January 27, 1944.



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"clues" ads are published as space is available, usually within two or three weeks of receipt. Closing date on publication issues, Thursday of preceding week. Rate: 50 cents a word; \$2.50 per line. Minimum \$5. Box number counts as 2 words. Address replies c/o Business Week, 530 W. 42nd Street, New York 18, N. Y.

THE MARKETS

(FINANCE SECTION—PAGE 68)

The stock market, stimulated by the news early this week that General Motors was raising the first 1944 quarterly dividend on its common stock to 75¢ (from the 50¢ rate that prevailed last year and in 1942), has been able to do a bit more than just hold its own. Also, the quality of the purchasing has improved somewhat during the past few days.

• **Spotty Trend**—However, the current upward turn in the market has been quite spotty. The industrial list generally has recovered only a moderate part of the losses suffered as a result of the rather persistent recent selling pressure. (Standard & Poor's industrial stock price index dropped to the lowest levels since mid-December.)

The rail stocks are now showing some signs of being a bit tired after their long trek upwards. Current trading volume is running well below some levels when selling was rife. Consequently, there is a wide belief that the market may be experiencing only a short-lived technical rally.

• **Some Optimism**—Market students generally, in view of the strength still being evidenced in the speculative rail bonds (particularly in the defaulted issues), can see no current signs indicating that any serious near-term security liquidation movement is in the making. Many expect the industrial stock list, as a whole, to sell at higher levels subsequently.

In fact, some optimistic chart readers now predict a definite turn upwards in the trend by or before early summer. Also, they even foresee an eventual 1944 high in industrial stock price indexes which may run some 15% above the

1943 peak and 20% to 25% ahead of current levels.

• **Won't Get on a Limb**—The more conservative economists in the financial district, however, aren't quite so confident and won't go far out on a limb in making predictions. In discussing the immediate and longer term outlooks, they prefer to stress the importance marketwide of various intangible factors.

They wonder, for example, if investors generally are aware that war profits have about reached their peak; also, that stock piles are beginning to accumulate and may cause trouble for business subsequently, unless their disposal is handled properly; and that important reconversion problems remain to be solved.

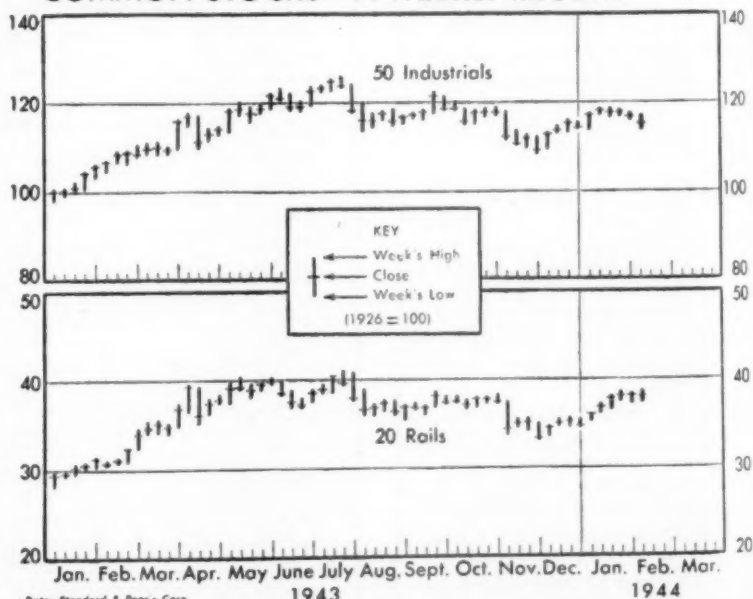
• **Uncertain on Reaction**—More importantly, this group is not yet sure just how the investor and speculator will react to the events actually arising out of the current uncertainties surrounding the domestic and international political pictures and the coming invasion of Europe.

Security Price Averages

	This Week	Week Ago	Month Ago	Year Ago
Stocks				
Industrial ...	115.1	116.8	118.1	106.8
Railroad	38.0	38.2	36.9	30.8
Utility	49.7	50.5	50.6	40.4
Bonds				
Industrial ...	119.2	119.4	119.9	115.6
Railroad	38.0	38.2	36.9	30.8
Utility	115.6	115.6	115.6	111.1
U. S. Govt. ...	112.3	112.0	112.2	109.7

Data: Standard & Poor's Corp. except for government bonds which are from the Federal Reserve Bank of New York.

COMMON STOCKS—A WEEKLY RECORD



Data: Standard & Poor's Corp.

THE TRADING POST

Outlook for Timber

A letter from F. K. Weyerhaeuser, president of the Weyerhaeuser Sales Co. of St. Paul:

In the Jan. 22 issue of Business Week, on page 34, is an article regarding an argument between federal officials and lumbermen as to the adequacy of the U. S. timber supply in view of the rapidly speeded-up cutting of lumber for war usage.

This argument is not new. In fact, it has been going on for about forty years since the days when Gifford Pinchot was Chief Forester. The lumber industry believes that, with reasonable care of our forests, particularly in the way of reduced fire losses, there will be adequate timber growth to meet all of the needs of this country for forest products. The record for twenty-five years has indicated constantly increasing forest growth. In 1920 Senator Capper's committee reported to Congress an estimated total annual forest growth of just under 6 billion cubic feet. In 1933 Senator Copeland's committee reported to Congress an estimated total annual growth of 9 billion cubic feet. In 1936 the U. S. Forest Service estimated the total annual growth to be 11.2 billion cubic feet. Thus growth in 1936 was nearly twice as great as in 1920. This rate of growth will be materially increased when all of the pine region of the Southern states is given as complete protection against fire as is now given the forest areas of the Western states.

There are still about 100 million acres of virgin forest land on which there is no net growth. Those lands will not be in producing condition and adding to our net supply until after the old timber has been harvested.

* * *

In 1936 the U. S. Forest Service estimated that the total of timber cut and the total destroyed by fire, insects and disease amounted to 13.4 billion cubic feet. Of that amount 2 billion cubic feet represented the portion destroyed by fire, insects and disease, or indicated a total timber cut for use of 11.4 billion cubic feet. For the same year the Forest Service estimated the annual growth at 11.2 billion cubic feet. From these figures it will be seen that the 1936 annual growth practically equalled the annual use of forest products, with a deficit in total due primarily to fire and insect loss. Complete fire protection will probably increase growth to an amount materially in excess of the deficit as shown for 1936.

It is quite possible that complete protection of all forest lands from fire would cost the United States taxpayers less and would result in more forest growth than would the passing of a law providing strict federal regulation with the accompanying host of federal inspectors and tremendous expansion of federal bureaucracy such a law would create.

During the last ten years private timber land owners have made marked progress in managing their timber lands and methods of operations for the purpose of placing their

forest properties on a continuous production basis. More and more companies have been able to adopt methods that reasonably assure the permanence of the operations. There has also been marked improvement in the control of fire on forest lands. The trend of private forest management is toward greater permanence of the industry. The trend of forest growth is very definitely upward.

* * *

There are many elements in our Government which would like to see an extension of federal regulation and the enlargement of the bureaucracy which such regulation implies. One of the main arguments of some of these people is the cry of "timber famine," a cry that has been made for the last forty years and which, time after time, has been proven unduly pessimistic. Briefly, some federal officials believe that more trees will be grown through force of law, backed by the necessary bureaucratic inspectors. They also desire an increase of federal ownership of some 136 million acres of forest land, an area greater than that of the states of Michigan, Wisconsin and Minnesota. The lumber industry does not believe the forest situation is in any way so critical as to warrant this tremendous increase in federal domination of the industry. Those in the lumber industry believe that while progress may be slower under private ownership, such progress will be upon a sound basis without cost to the taxpayers of the nation and with less disruption of local and state governments in those regions where private forest lands form an essential part of the tax structure.

Out With the "Spinach"!

In the rooms of the Brown Hotel of Louisville appears the following:

We've Removed the "Spinach" for Our Uncle Sam!

Ten to one you haven't even noticed it—but in an effort to save basic materials and housekeeping labor, we recently opened the window and threw out a lot of "spinach" which, over the years, had sort of become customary in our Brown Hotel bedrooms.

Candles and candle-sticks which nobody ever used—pincushions and needles which usually served no purpose except to collect dust—cuspidors in the bathrooms (of all places!)... these and a lot of other useless "services" are now out, thank Heavens!

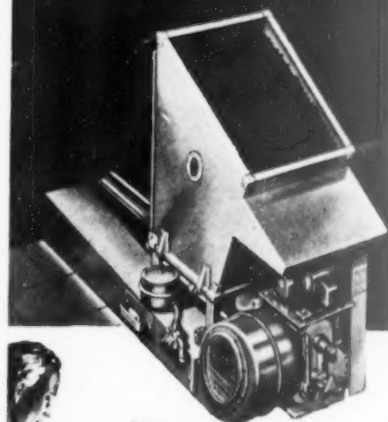
Every once in a while some guest may really want a candle, or needles and thread, or extra towels, or a cuspidor, or something else that has been discontinued. If you find yourself needing anything, please don't just "go without" it—call the Housekeeping Department and it will be sent up quickly. We're here to serve you.

Whatever the reason, the fact is that the Brown somehow does maintain its essential services a good thick cut above the average. Maybe there is something to that "spinach" theory.

W.C.

Coal Conservation

is best achieved with Iron Fireman firing



The Iron Fireman stoker pictured here is truly an iron fire man. Its operation

has been balanced to the capacity of the boiler it fires. Its rate of feed, air volumeter and fire control instruments are set to deliver exactly the performance required. Then Iron Fireman—the iron fire man—takes over.

Automatic fire control prevents fuel waste from over feeding—prevents waste from fire neglect. There is no better way to achieve such genuine coal conservation.

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Automatic Coal Stokers

THE TREND

THE PROFITS OF RENEGOTIATION

To many business men, the long-awaited congressional overhaul of the contract renegotiation law now seems disappointingly feeble. In the long run, it may turn out to be a better bargain than it looks.

• **Business is counting** on Congress to see it through a number of tight spots in the next year or so—to arrange for orderly disposal of government-owned surpluses, set up machinery for prompt settlement of claims on canceled contracts, provide a simplified postwar tax system. With all this ahead of them, it would have been dangerous tactics for business men to use up all their ammunition fighting the renegotiation law.

And the new amendments establish two points that business wanted badly: (1) They provide aggrieved contractors with clear-cut authority to take their cases to the Tax Court for review; (2) they set a definite time limit on renegotiation—Dec. 31, 1944, is now the cutoff date, with six months' extension authorized if the President orders it.

Beyond that, however, Congress finally refused to adopt any of the fundamental changes proposed by business spokesmen. It decided to leave renegotiation on a before-taxes basis, instead of instructing the price adjustment board to recapture only excessive profits that remain after taxes. It did not authorize an extra allowance for reconversion reserves. It left the area of renegotiation—the contracts and subcontracts covered by the law—substantially unchanged.

This probably represents Congress' final decision on renegotiation. Even if they wanted to change their stand, congressmen would balk at reopening the touchy subject of profit control in an election year when labor is storming at the system of wage controls and consumers are getting restive over price increases. The only realistic course for business is to take it for granted that renegotiation will continue as is for another year and a half.

If war contractors accept this blunt fact with good grace, they will strengthen the case they present to Congress when it takes up such subjects as reconversion expenses and sale of postwar surpluses.

• **As things stand now**, Congress is sympathetic toward business men and more strongly determined to help them through the difficulties of contract termination and reconversion. In working over the renegotiation law, however, it was under a double handicap: Administration opposition, and the complexity of the problem. On some points, it ran into specific difficulties—for example, the fact that the excess-profits tax would swallow up postwar reserves even if renegotiation procedure made allowance for them. On others, it simply came up against the basic paradox of profit control, the fact that any system short of a hard-and-fast profit limit must of necessity leave the final deci-

sion to the discretion of the renegotiation authorities.

By itself, this is cold comfort to war contractors, who wanted not sympathy but amendments that would make a measurable difference in their income statements. In future legislation, however, the arguments that business witnesses made during the renegotiation hearings will do a good deal to color Congress' thinking.

• **There are several other points** war contractors might consider in appraising the law as it now stands. For one thing, the government's use of renegotiation has staved off more drastic methods of profit control—the flat percentage limit advocated by some congressmen at the start of the war, or the 100% excess-profits tax that England uses.

This is a point that most business men have kept in mind, even when the campaign to amend the present law was going full blast. A carefully handled attack probably could have discredited renegotiation and its administrators so thoroughly that Congress would have repealed the whole thing. But no congressman would dare face his constituents with a voting record that put him down as in favor of selective service, in favor of wage and price stabilization, and against profit controls. Hence, repeal of renegotiation would have been followed by adoption of some other limit on profits. Knowing this, most of the business witnesses accepted the basic idea of renegotiation and concentrated their fire on specific objections.

• **One final thing** for business men to consider is the public relations value of renegotiation. So far, industry as a whole has got through the war without having to face any serious charges of profiteering. One reason for this immunity is the renegotiation law. If the drastic amendments proposed by the Senate Finance Committee had been adopted, many companies would have begun receiving refunds just about the time the European invasion got under way. It would have taken a good deal of explaining to talk the public out of the impression that this would have created.

Even more important is the question of where business will stand with Congress and with the public after the war. It may be that there will be no revulsion of feeling this time, no Nye committee to investigate profiteering, no wholesale condemnation of munitions makers. But a practical business man can hardly count on it. It is a real and valuable asset to his business that the government has checked his income and recaptured what it regards as excessive profits. From this standpoint, a war contractor can charge up his renegotiation refunds as a capital investment in the protection of his future.

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